

5-15-1980

# Rubaiyats

William H. Hubbell

Follow this and additional works at: <http://scholarworks.rit.edu/theses>

---

## Recommended Citation

Hubbell, William H., "Rubaiyats" (1980). Thesis. Rochester Institute of Technology. Accessed from

This Thesis is brought to you for free and open access by the Thesis/Dissertation Collections at RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact [ritscholarworks@rit.edu](mailto:ritscholarworks@rit.edu).

RUBAIYATS  
by  
William H. Hubbell

Submitted in Partial Fulfillment of the  
Requirements for the Degree  
MASTER OF FINE ARTS

MFA PHOTOGRAPHY PROGRAM  
SCHOOL OF PHOTOGRAPHIC ARTS AND SCIENCES  
ROCHESTER INSTITUTE OF TECHNOLOGY  
ROCHESTER, NEW YORK

May 15, 1980

---

Charles Arnold, Chairman  
Professor  
School of Photographic Arts & Sciences

---

Martin Rennalls  
Associate Professor  
School of Photographic Arts & Sciences

---

Kathleen Collins  
Assistant Professor  
School of Photographic Arts & Sciences

Permission Page

I, William H. Hubbell, prefer to be contacted each time  
a request for reproduction of my thesis, Rubaiyats, is made. I can  
be reached at the following address:

42 Weider Street

Rochester, New York 14620

Date 15 MAY 1980      Signature \_\_\_\_\_

Rubaiyats

is dedicated to

RICHARD CLEMENTS HUBBELL

who taught me about death

and

CAROL VAN AUKEN HUBBELL

who teaches me about life

## TABLE OF CONTENTS

I. INTRODUCTION.....	1
The Scope and Purpose.....	1
The Thesis Proposal.....	2
Purpose of the Thesis.....	2
Scope of the Thesis.....	2
Procedures.....	4
The Audio Visual Medium as an Art Form.....	5
II. THE PROCESS OF CREATING RUBAIYATS.....	12
The Assembling of Elements.....	12
The Principles of Organization.....	15
The Nonnarrative Form of Organization.....	15
The Use of Sequences.....	18
Techniques for Interrelating Audio Visual Elements..	21
The Temporal Dimension.....	28
The Nature of a Temporal Structure.....	28
Temporal Structures of Narrative and Nonnarrative Audio Visual Works.....	30
Production Techniques.....	32
An Outline of the Procedures.....	32
Phase One: Recording and Timing the Audio Track....	35
Phase Two: Calculating Slide Changes Mathematically	37
Phase Three: Aesthetic Adjustments.....	40
The Use of Mathematics.....	40
Weight.....	42
Pace.....	43
Rhythm.....	45
Dissolves.....	46
The Synch Script.....	48
Phases Four and Five: Recording and Adjusting the Synchronization Track.....	48
Technical Considerations.....	51
III. RUBAIYATS AS A WORK OF ART.....	56
Photography.....	56
Drawings.....	64
Commentary.....	67
Non-Verbal Audio Elements.....	70

Rubaiyats in its Entirety.....	72
A Chronological Description of Rubaiyats.....	77
Opening.....	77
Words Twist.....	80
Wedding.....	81
Winter Introduction.....	83
Collegiana.....	84
Dream.....	85
Mount Hope Dance.....	87
Sea Sequence.....	89
Apogee.....	91
Greenhouse.....	92
Spring Transition.....	93
House.....	95
Carol.....	96
Summerend Song.....	98
Ending.....	99
 IV. CONCLUSIONS.....	 102
 SOURCES.....	 104
 APPENDIX A. PLANNING BOARD.....	 106
APPENDIX B. MASTER TAPE RECORDING SHEET.....	107
APPENDIX C. TIMING ANALYSIS.....	108
APPENDIX D. SYNCH SCRIPT.....	110
APPENDIX E. WORKING SYNCH SCRIPT.....	112
APPENDIX F. SOURCES OF RECORDED MUSIC AND SOUND EFFECTS.....	113
APPENDIX G. SLIDES AND AUDIO CASSETTE FOR RUBAIYATS.....	114
(Separate Volume)	

## I. INTRODUCTION

### Scope and Purpose

The primary purpose of this thesis report is to discuss the use of the audio visual medium as a means for artistic expression. Most of the following report will deal specifically with the creation of my thesis project completed in May 1978, an audio visual work entitled Rubaiyats. Although the field of audio visual communication has dramatically expanded within recent years, most people involved in the medium are commercially oriented. Their approach is understandably different from mine as an artist. In pages that follow I will chronicle the process of the creation of Rubaiyats and then discuss it in detail as a work of art. I thus hope to show in concrete terms the special problems and potentials of the audio visual medium.

The creation of Rubaiyats involved much more than aesthetic concerns. Audio visual presentations invariably pose a wide variety of technical and organizational difficulties. Many of these difficulties relate only to a specific configuration of equipment and thus are of little interest to others who are not using that equipment. I will mention these only briefly. There are, however, organizational techniques in assembling an audio visual production which are not equipment specific and which are useful to both the artist and the commercially oriented media specialist. Much of the report is involved in describing these techniques.

Finally, this thesis report advances certain theories as to how the medium functions. These theories were developed while I worked on Rubaiyats and they are included in this report primarily to enhance the understanding of Rubaiyats as an artistic work. Much of my thinking on such theoretical matters was subsequently clarified by my experiences in producing commercial audio visual presentations. It is beyond the scope of this report to attempt to prove these theories. Such a task is more appropriate for a psychologist than an artist. These theories are not the product of research but rather the empirical results of working within the medium. I have found them useful, others may also.

### The Thesis Proposal

#### Purpose of the Thesis

The purpose of this thesis is to produce a work comprised of diverse elements - original transparencies of a wide variety of photographic subject matter, transparencies of original art, recorded words and recorded music - which interplay to form a tonal self-portrait.

#### Scope of the Thesis

This thesis springs from two sources. The first is my belief that art should involve emotional communication. I use the term "emotional" not in its strident sense but as it pertains to those subtle states of mood which are nearly impossible to describe directly. The second is my belief that complex systems of interacting parts most accurately reflect reality.

A recurring theme in my journals is that words frequently fail to convey the entirety of what I wished to say. Images have the potential to communicate on planes less accessible by verbal means, and yet they



also are only partially effective communicators. The same can be said of music. Each one of us lives in a complex environment of verbal, visual, and auditory input. The ideas and emotions derived from this environment reflect the complexity of their source. Part of the difficulty of self-expression stems from trying to funnel the emotions and ideas arising from many channels back primarily through a single channel. The end product, of necessity, suffers some form of simplification.

My particular interest lies in the possibility of combining visual, verbal, and musical modes of expression to communicate perceptions of my environment, both objective and imaginative. I will concentrate on those aspects which interest me most - the natural landscape, Carol, the seasons, and death. This work will essentially be a self-portrait in that the quality of my observations will reveal more about myself than the subjects of those observations. My focus will be on the tone of those perceptions. I use the word "tone" in its literary sense as an expression for the mood of a work.<sup>1</sup> We can often recognize the tone of a body of work even if due to its complexity we cannot adequately describe it. I seek to produce a work concerned with the tonal qualities of my perceptions, qualities which cannot be adequately described in words.

---

<sup>1</sup>Frequently the tone of a literary work is described in very simple terms since our language in general does not have precise definitions for emotional states of being. When I use the term "tone" I wish to apply it in its least general sense. It is the more complex and subtle emotional states that I am concerned with.

One of the principal goals of this thesis is to present a diverse and complex variety of perceptions within a unified work. The means for achieving this goal arise from a long time interest in unifying literally diverse elements. Sources for these techniques derive from my undergraduate honors thesis on sequential images and subsequent graduate work in this field. Sequences can be composed in a variety of ways; one extreme is random ordering and the other extreme is the narrative approach where each unit is linked in a simple logical chain. I am interested in sequences that are ordered in a manner intermediate of these two extremes. The interplay between the units will be a vital expressive mechanism of the work and yet the units will not necessarily link together logically. The effect of the work will owe much to a diversity which reflects the seemingly random quality of thought. Much of Robert Rauschenburg's work reflects this approach as does Fellini's film Amarchord and my own slide-tape piece, An Autobiography Comprised of Artifacts.

#### Procedures

The thesis project will consist of a synchronized slide and cassette tape presentation of approximately twenty-five to thirty minutes duration. Both the visual and audio portions of the presentation will be conceived as fully integrated components of a single work. The visual component will consist of photographic work in the form of original transparencies and art work reproduced as transparencies. The audio component will consist of readings from my own writings and from Edward Fitzgerald's translation of The Rubayyat of Omar Khayyam, and of recordings of musical works. Formal presentation of the thesis will consist of several showings of the completed work to the RIT community

and the general public. The thesis report will primarily deal with the principles involved in producing a single expressive entity out of a diversity of elements.

### The Audio Visual Medium as an Art Form

An audio visual presentation is, as its name implies, a communications medium which combines sound with visuals. In its broadest sense this definition includes all television and any motion picture with sound. Generally it is used in a more restricted sense to refer to the combination of a visual medium, photographic slides, with an audio track recorded on tape. The tape not only provides the audio portion of the presentation but also controls the timing of the visual portion by means of inaudible synchronization signals. These signals can be used to advance a single slide projector by means of a simple synchronizer or they can cue a sophisticated programmer which controls dozens of slide projectors simultaneously and provides a wide assortment of special effects. In this report I will use the more restricted definition of an audio visual presentation to mean a slide show synchronized with an audio track.

The audio visual medium has grown rapidly in recent years as a form of communications. The primary reason for this has been the development of a wide variety of sophisticated hardware which has made the production of complex audio visual shows possible. Although there is a great deal of activity in the field, it is almost purely commercial. The expense of even the simplest equipment, the wide range of technical skills required, and the volume of slides needed for even a short show tend to make audio visual productions group efforts best handled by

specialized production houses.

The mediums of video and film making also are complex, technical, and expensive yet they are used by many for artistic expression. The audio visual medium currently does not have a similar artistically oriented component. A partial explanation for this is that until very recently audio visual equipment was very crude and inflexible or prohibitively expensive. Another reason is that the slide show has not yet achieved the comfortable status of Art. The slide itself has yet to obtain open admittance in the pantheon of Photographic Art. It is a photographic medium which does not lead itself to virtuosic feats of craftsmanship. Since a slide is both negative and print, the artist cannot use the mystique of the craftsman to enhance the status of his images. Unavailable also to the slide maker is the artistic aura that an image acquires when it is hung on a gallery wall. Even an SX-70 print can benefit from this treatment.

Finally, slides have the taint of the familiar since most amateur photographers can produce technically acceptable slides. The artist who chooses photographic slides as his or her means of expression thus tends to encounter a general disinterest in the medium in artistic circles. This fact is as inhibiting as the technical problems to the potential audio visual artist. In the long run, I believe that the inherent potentials of the medium will draw artists despite the various obstacles. The audio visual presentation is a powerful and rich form of communication and expression, a fact that has not been ignored by numerous commercial photographers and their clients.

My initial interest in multiple images began in 1968 when I was an undergraduate art student. I devoted my senior year to an honors

project concerned with an idea which I called "the image sequence." My image sequences then were series of etchings or woodcuts where the individual prints were conceived as subordinate parts of a unified whole. I was interested in the interactions between the images within a sequence and the cumulative effect of all the images in the sequence. Even then I felt that the latter phenomenon was an effect that went beyond a simple accumulation of impressions, that the impact of the whole sequence was greater than the sum of the individual parts.

I made the next step towards the creation of Rubaiyats early in 1975 when I put together a slide-tape show entitled An Autobiography Comprised of Artifacts. This show used a recorded audio track and a dissolve unit, but it was not synchronized. The slides were advanced manually according to a script of the recorded commentary. Autobiography was assembled from quotations from letters I wrote over the previous few years to Carol, my wife-to-be; quotations from J.R.R.Tolkein's The Hobbit and The Lord of the Rings, slides of my drawings from the period of 1970 to 1974, slides made contemporaneously with the drawings, and selections of music that I recalled as being my favorites during that same period. The basic premise of the work was that an objective autobiography would be achieved if none of its elements were specifically created for the piece. My power to interpret my past was limited to the selection and organization of the various elements that were used in the presentation. This premise combined with the simple approach to combining the visuals with the audio track made assembling An Autobiography Comprised of Artifacts a relatively easy task.

The finished piece was forty-five minutes long and by most standards fairly crude in execution. The transitions between the visual

elements tended to be abrupt, the photography was unsophisticated, the visuals were often on the screen too long, the audio quality was poor and, in general, the show lacked polish. The total effect of the piece, however, seemed to transcend these shortcomings. People who viewed Autobiography told me afterwards that they had experienced a sense of very direct and personal communication.

I will not try to analyze Autobiography here. The chief significance of the work was that it convinced me that the audio visual medium has a potent capacity for communication. I was particularly interested in its ability to communicate on the emotional plane. To understand the potential of the audio visual medium one must first recognize that it is a unique form of visual communication. At first glance the medium would seem to simply occupy an intermediate place between still photography and motion pictures. Superficially this is the case, but each medium is perceived quite differently. In still photography each image is viewed separately and is perceived as a self-sufficient entity. The artist generally has little or no control over the context in which the image is viewed despite the fact that this context can have a great influence over how the image is perceived by the viewer. The film maker and his cousin, the videographer, do not have this problem of context. They have a firm control over what the viewer sees and when he sees it. The viewer's only option is to watch or not to watch. Film and video, however, have a special characteristic that tends to complicate and often diminish the artist's control over the perception of his work. This characteristic is that both mediums simulate the motion of reality. They thus tend to become bound by rules of everyday visual experience. Motion has its own pace which the film maker and videographer may alter

to a degree but cannot ignore. A walking person, for example, has not only a look but also a tempo that cannot be altered without distorting the conception of walking. Also the viewer's attention instinctively focuses on movement<sup>1</sup> so that any motion in an image becomes a dominant component of that image. An audio visual presentation offers the same control over the context of perception that film and video have, but without the complications of motion. This situation gives the artist a great amount of freedom in creating his imagery and also places at his disposal several potent communicative devices.

The foremost of these devices is cumulative effect. The effect of a sequence of images and sound goes beyond the simple addition of the individual impacts of the separate elements. If that were the case, the order of the elements in a sequence would have no influence on the cumulative effect. This is clearly not the case; sequential order is extremely important. The phenomenon of cumulative effect was something that I intuitively appreciated as an artist without fully understanding its theoretical foundation, just as a painter can work with color without being versed in the laws of optics. The principle was made clearer to me through continual application. I came to see cumulative effect as the principal aesthetic product of the audio visual artist.

Cumulative effect is basically the result of the viewer's attempt to understand the artist's creation. It derives from people's natural inclination to attempt to resolve the ambiguity of the still image.

---

<sup>1</sup>This fact was taught to me for very practical reasons in the U.S.Army Basic Combat Training.

The audio visual artist channels this normal human trait to his own creative ends through his control of the sequence, timing, and audio context in which these images are viewed. As the work progresses in time the viewer comes to understand the image on the screen in light of what has preceded it. It is this understanding that has developed in the viewer's mind that I define as cumulative effect. This is the phenomenon which can give force and subtlety to an audio visual work. It is the product of a delicate channeling of the viewer's visions until a mental structure is achieved which not only encompasses the diverse elements of the work, but nuances suggested by the spaces in-between. The creation of such an effect is clearly not a matter of following a few rules. The decisions involved are subjective ones. The artist has on his side, however, his audience's innate desire to make sense out of what he presents. Cumulative effect is a natural product of the medium. It presents an opportunity for expression which, if use properly, can have a powerful effect.

The use of time as an expressive device is also an important aspect of the medium. The creative uses of image duration or "weight," of pacing, and of rhythm will be discussed at length later in this report. The significant point in this discussion is that the audio visual medium allows the artist to deal with time in the same direct manner a musician does. The audio visual artist is a still image maker who has literally added another dimension to his work. Yet, unlike the film and video artist, his use of time is uncomplicated by inherent temporal qualities of his subject matter. These have been eliminated in the process of still image making.

Finally, in any discussion of the uniqueness of the audio visual



medium, one cannot ignore its special blend of basic elements - still images, the spoken word, sounds, and music. It is a special combination with its own strengths and weaknesses. The weaknesses are principally the absence of some of the capabilities found in the other visual mediums. The viewer cannot contemplate the images at his own pace. The artist cannot use motion to enhance his expression. Some of the strengths of the audio visual medium are those inherent in its component parts, such as the ability of a simple phrase to succinctly express a subtle mood. One of the special qualities of an audio visual work is that while it synthesizes these elements into a single entity, it can do so without diminishing their special characteristics. This feature is perhaps the most compelling attraction of audio visual work to the artist who appreciates the special qualities of sound, the spoken word, the still image and music, and is capable of working in a variety of forms of expression. For him the medium offers the best of several worlds.

## II. THE PROCESS OF CREATING RUBAIYATS

### The Assembling of Elements

The creation of Rubaiyats involved two processes; the first of these was the creation or selection of the elements used in the piece, and the second was the organization of these elements into a single expressive entity. These processes were interrelated and yet distinct. Both continued throughout the period I worked on the piece. In the first process I functioned as an artist in the traditional sense, expressing myself through writing, photography, and drawing. In the second process, my writings, photographs, and drawings functioned as musical notes do for a composer - elements to be organized into a single creation. This analogy is not perfect for obviously my elements were not as expressively neutral as musical notes. It is useful, however, to point out that for the audio visual artist, organization is a primary creative tool and has none of the sterile character the word has come to connote. The process of creating the visual and audio elements and the process of organizing them into an audio visual presentation became increasingly interrelated as work progressed. Towards the end of the organization process, many of the visual and audio elements were specifically crafted to fit into the plan of the piece.

The initial difficulty in creating Rubaiyats was that I desired the work to have an unordered quality. I envisioned it as a collection of fragments organized by means other than a single narrative commentary running throughout the show. I was particularly interested in including

a diversity of subject matter. By doing so I hoped that the presentation would become a multifaceted self-portrait which reflected a broad range of my interests. The underlying unifying force behind this assemblage was to be my own personality. I began work on Rubaiyats without a definite plan for creating the photographs, drawings, and commentary necessary for assembling the presentation. Despite the understandable difficulties of such an approach I considered that initially proceeding without a definite script would be the best method to insure that Rubaiyats reflected my particular relationship with the world around me.

Most of the photography for Rubaiyats was done roughly according to that principle. Essentially, I photographed whatever attracted me without worrying how the images would be used in the presentation. I was aware that I would need a large volume of images to work with if the sequences were to fit together smoothly. It would be impossible to decide when photographing if a particular slide would ultimately be usable. Thus, I never passed up taking a photograph simply because it didn't seem to fit in my plans at the moment. This was the building up phase where I gathered as much visual raw material as possible.

This phase went beyond the passive collection of material. Although there was no preconceived plan for Rubaiyats, I had a sense of the emotional quality that I wished to express in the piece. It was a feeling that thus far had not taken a describable form; it lay as a presence near the border of rational awareness. I could sense this feeling in some of my previous photography and I planned to use photography as a tool for introspection. The lack of a rigid shooting schedule aided immensely in this project. The photographs exercised a considerable influence over

the ultimate form and content of Rubaiyats. Areas of personal interest became obvious through my collected slides. The initial photographic period lasted from November of 1976 to October of 1977. At the end of this period, the assembled imagery helped me to form the philosophic statement expressed in the final commentary, "Summerend Song."

By the "initial photographic period" I mean the period before Rubaiyats was organized into a definite structure. Once I had settled on a structure I tended to make photographs to fit into specific sequences. In some cases, such as the final photograph (slide 63) before the dream sequence, a whole shooting session was directed to producing one preconceived image. In other cases, such as the greenhouse sequence, I reshot a specific subject because I now had a clearer idea of how I wanted the images to work within the sequence.

Even during the initial photographic period I was not working entirely without a plan. I started out with broad areas of interest - Mount Hope cemetery, nature, and Carol. Once I started taking photographs, the images began to suggest sequences. Sometimes the combinations were formed on the light table. Sometimes while I was photographing I would see something that would fit with existing imagery. Throughout this period, sequences came to my mind and developed (and sometimes disappeared) without being set into an overall structure.

During the initial photographic period I was also working on the audio portion of Rubaiyats. Most of the music used in the presentation was selected early in its development. My response to music is almost purely emotional and I find that different musical selections have very definite emotional colorations. I had little difficulty in deciding what music I wanted to use since I had a good idea from the

outset what emotional tones I wanted to have in the piece. Although I continued throughout the time I worked on Rubaiyats to consider changes in the music, eventually I changed only one of my original selections. Only in the case of the ragtime selection, "Collegiana" by the Nitty Gritty Dirt Band, did my music selection influence my shooting. Here the music inspired the entire ragtime sequence.

The commentary portion of the audio was developed in four different ways. The first was the process of selection of verses from an existing work, The Rubayyat of Omar Khayyam. The second process was that of jotting down ideas that seemed appropriate to the work. These commentaries tended to be short and impressionistic in nature. The narrative to the dream sequence originated as an actual dream which I transcribed the following morning. Finally, the longer more philosophical pieces - Carol, the house commentary, and Summerend Song - were written in September and October of 1977 after much of the material for Rubaiyats had been assembled. They represent the philosophic culmination of Rubaiyats. Once they were written I was prepared to commence organizing the work into its final form.

### The Principles of Organization

#### The Non-Narrative Form of Organization

My goal in organizing Rubaiyats was to create a work that had unity while reflecting the apparently random quality of thought. The basic concept was that of a stream of consciousness. I wanted to skip from one subject or mood to another unfettered by a logical structure. Rubaiyats was to be largely concerned with my relationship to the universe. Since that relationship is not wholly logical, it follows that

a work concerned with that relationship could not use a purely logical system of organization.

The work of Robert Rauschenberg and Frederico Fellini (particularly his film Amarcord) influenced me to adopt a nonlogical approach to organization. The work of both artists has an air of complex and rambling spontaneity which intrigued me greatly. On earlier occasions I had written analyses of both Rauschenberg's and Fellini's work which concluded that despite appearances their creations were highly organized. I held that this organization largely contributed to their work's success, particularly because it was not obvious. Many of these organizing techniques did not rely on the logical connections between elements to integrate the various parts of the work. For example, Fellini's Amarcord uses a steady thumping beat to link a masturbation scene with a Fascist rally. Similarly, Rauschenberg often connected the wildly divergent subject matter of his canvasses by means of the surface similarity imparted by his silkscreen technique of printing images. His paintings were thus unified despite the fact that it was impossible to describe what they were about. The essential lesson for me of both Rauschenberg's and Fellini's work was that their various techniques of organization freed them to explore a wide range of subject matter without sacrificing unity. This diversity gave their work incredible richness and subtlety.

Organization is a rational process, but it need not be based on logic. The narrative audio visual presentation represents the logical form of organization. Its underlying structure is verbal and linear. The commentary is a succession of ideas, each related logically to the preceding idea. The visual elements are interrelated through this

verbal commentary. The non-narrative form of organization abandons this logical means of connecting visual elements. The various components, however, must still be interrelated into a coherent whole. This is accomplished through a broad range of devices which establish relationships by subjective means. An example of this kind of subjective connection is the use of visual similarity to link images. Slides 37 through 40 illustrate such a relationship. In this sequence, a snapshot of my father-in-law holding a bouquet is followed by a close-up of the bouquet. The next slide is still of flowers, but these are granite flowers carved on a tombstone. There are dark stains streaking down the tombstone from the flowers. These streaks are found in the next slide also but here they are streaks of snow down the dark face of a cliff. The connection is thus father-in-law to bouquet to tombstone to snow. It works by visual means alone. Music is another non-logical means of providing a structure for the presentation of visual elements. It connects them by means of its own structure as does a narration, but instrumental music does not organize the elements it connects logically. The various techniques used to interrelate the elements of Rubaiyats will be enumerated later. The important point for this discussion is that organization can follow paths other than the straight line charted by a narrative.

The organizing of Rubaiyats actually commenced in an informal manner as soon as I decided to create an audio visual presentation. For a long period, however, my conception of the work was nebulous and constantly changing. During this time there was no written plan for Rubaiyats, just a mental picture which expanded as I added more elements. A good analogy for this process is that of working on a jigsaw puzzle.

I conceived of the visual and audio elements as being like the pieces of a jigsaw puzzle, parts of a single entity. During this informal phase of organization my attention tended to be focused on fitting individual pieces of the puzzle together. By the end of this phase I had large, yet still isolated sections of the puzzle assembled. Formal organization consisted of fitting the blocks of pieces into a coherent whole.

### The Use of Sequences

The principal difficulty of a non-narrative system of organization is its tendency to become unmanageably complex. A narrative provides an audio structure which is easy to plot out and then to use in organizing the visual elements. Abandoning the narrative as the central means of organization allows for a multiplicity of means for interrelating the components of the work. As a result, each element has the potential for linking to a wide variety of subsequent elements depending on which connecting technique is used. As an audio visual work grows in length and complexity, organizing it on an element-by-element basis becomes increasingly burdensome. It becomes too easy for the artist to lose perspective in a bewildering array of diversity.

My solution to this difficulty was to form audio and visual elements into sequences and then use these sequences as the basic organizational elements in creating a structure for the presentation. Thus the problem of interrelating close to three hundred visual elements and dozens of audio elements was attacked in stages. In the first stage, short sequences of audio and visual elements were formed. Initially this was a basically simple process where the sequences coalesced naturally into distinct thematic units. Ultimately there were fifteen sequences in Rubaiyats; "Opening", "Words Twist", "Wedding", "Winter



Introduction", "Collegiana", "Dream", "Mount Hope Dance", "Sea Sequence", "Apogee", "Greenhouse", "Spring Transition", "House", "Carol", "Summerend Song", and "Ending". The task of interrelating the elements within a sequence was approached individually, sequence by sequence. No one technique or series of techniques was used throughout, indeed, "Dream" used the narrative technique of organization. The sequence was a means of reducing the mass of potential material into manageable portions. Since the sequence was essentially a thematic unit and not an arbitrary division, the technique functioned well aesthetically.

The second stage in organizing Rubaiyats became a matter of organizing sequences rather than individual audio and visual elements. The sequences were manipulated much in the same way that the slides within them had been. The final positions of "House" and "Carol" were switched several times. "Sea Sequence" was added when the juxtaposition of "Mount Hope Dance" and "Apogee" seemed too stark and depressing. "Ending" was an outgrowth from "Summerend Song."

Once the sequences themselves were ordered, transitions between them had to be made. The series of slides 37 through 40 described earlier (father-in-law to bouquet to tombstone to snow) was the transition from "Wedding" to "Winter Introduction". The same types of techniques used to interrelate the elements within sequences were used to connect the final elements of one sequence to the opening elements of the following sequence. The principal difference between linking sequences and linking elements within sequences is that a transition between sequences usually involves a change in subject matter, theme, mood, organizational technique, or any combination of these. Sequence linkages thus are transitional periods in an audio visual work

and tend to be aesthetically critical. Generally I attempted to achieve a smooth transition, to blend one sequence into another. Examples of such blended transitions are "Wedding" to "Winter Introduction", "Sea Sequence" to "Apogee", and "House" to "Carol". An abrupt transition, such as change from "Winter Introduction" to "Collegiana", can also be effective. There is no one way to do it. The nature of a transition depends on aesthetic intent. The important point is that connections between sequences are times where special attention is required.

The foregoing discussion is, of course, an oversimplification of the process. In actuality, the processes of forming and linking sequences overlapped. Sequences were never completely formed before they were organized. Also, the order in which the sequences were organized resulted in many internal adjustments in their composition. In practice, the linking elements of a sequence, i.e. - the opening and closing elements, were the only ones that tended to become relatively fixed once the sequences were organized. These linking elements, however, were not always determined after the sequences were organized. Sometimes a particularly strong set of transition elements decided where a sequence would be placed. The non-linking elements within a sequence could, and did, remain in a state of change longer since changing these elements had less of a direct effect on the adjacent sequences.

As Rubaiyats approached a state of final completion, the significance of sequences as working units diminished significantly. Once the sequences were formed and linked together their primary function was accomplished - the diverse elements that formed Rubaiyats were given a coherent form. Further work on the piece could then proceed on two different levels. On one level, the individual audio and visual

elements could be refined since now they could be evaluated not only in relation to the elements within their sequence, but also in relation to all the elements in the work. On the second level, broad thematic concerns that developed through the entire work could now be considered. Often elements were added, deleted, or changed in light of this larger thematic perspective.

### Techniques for Interrelating Audio Visual Elements

Up to this point I have been talking about organization in a broad sense, avoiding discussion of specific techniques. The larger concerns of organization for the audio visual artist should be aesthetic and expressive ones. A smooth sequence of images neatly dovetailed together is a hollow accomplishment, in my opinion, if it does not advance some expressive end. Thus the particular devices for interrelating audio visual elements have taken their rightful secondary place in this report as means to an end. Effective use of these techniques, however, is quite important if a non-narrative audio visual work is to be successful. They establish interrelationships that give the work coherence in the absence of a narrative. Coherence is a sense of appropriateness of an audio or visual element to its context. It permits the audience to concentrate on the subtleties of that element rather than trying to figure out why it has been placed there. The following discussion will briefly enumerate those techniques used in Rubaiyats to achieve coherence.

A few general principles apply to the following techniques. First, there is an innate tendency in people to find interrelationships between sets of elements. This essentially makes the task of relating

audio visual elements easier. It does mean, however, that the artist must be aware that his audience may perceive interrelationships that he did not intend to establish. Secondly, although the linking of elements is approached rationally, the effectiveness of a linking technique must be evaluated subjectively. It does no good to explain why a series of elements fit together, if they do not seem to fit together. This can be a special pitfall for the audio visual artist who after many hours of working with the various components of his piece can see interrelationships between them that the audience will not be able to perceive during its brief exposure to the same components. Thirdly, many of the techniques listed below will form only weak relationships between elements when used singly. It is preferable to use a variety of different overlapping techniques within a sequence to relate its elements.

The most fundamental technique for connecting two visual elements is to have one image dissolve into the following image. While the dissolve is in progress the images are literally unified. This technique is basic to the audio visual medium. An extremely rapid image change called a "cut" does not have this quality.

Visual similarity is a primary means of interrelating images. There are three kinds of visual similarity - form, color, and value. Images may be linked by any one of these types of visual similarity or by a combination of types. This technique is especially useful when making transitions between sequences concerned with different subject matter. The transitional slides connecting "House" and "Carol" (slides 222 and 223) linked the two sequences through color and value. Visual similarity can also be used to integrate an image concerned with

a different theme or subject into a sequence. The nude in "Summerend Song" (slide 256) and the tombstone in "Opening" (slide 13) are both examples of fitting an "incongruous" element into a sequence by making it visually similar to the other images in the series. If this is done successfully, the theme of the entire sequence is expanded conceptually.

Subject matter is a device that can interrelate both audio and visual elements. The formation of sequences in Rubaiyats was basically done by subject matter. The concept of subject matter can be concrete and very visual, such as in "Carol" or abstract and purely verbal, such as in the beginning of "Summerend Song." The audio and visual components are frequently interrelated through this technique. This can be done in several different degrees: In "Sea Sequence" the audio provided a brief commentary related to the subject matter which was defined by the visual elements. In "Collegiana" the audio and the visual elements combined together to define the subject matter, dancing, with the audio providing the music and the images providing the action. In "Greenhouse" the audio commentary and the following wind sounds expanded the concept of the subject matter of the sequences from that of a greenhouse in winter to that of a conflict between spring and winter. Audio elements are particularly useful in the function of defining, clarifying or expanding a concept of subject matter which otherwise would be vague or simplistic if expressed in solely visual terms. Finally, in "Dream" the audio commentary is the subject matter for the sequence. The images in "Dream" are illustrations whose significance primarily derives from ideas expressed in the commentary.

When audio or visual elements are related because they involve aspects of a process, their interrelationship goes beyond common

subject matter. In this technique the elements are interrelated through their relationship to an event. The event forms an abstract connection between the elements, unifying them because they convey aspects of a single entity. "Spring Transition" is composed of numerous three-image series on the processes of budding, growing, and blooming. For this technique to be effective, the viewer must have a clear conception of the process to which the audio or visual elements refer.

Audio or visual elements can also be unified when they are linked to form a progression. In a progression the elements display a regular and predictable change through a series. "Winter Introduction" was unified by a progression where each image in the series showed the landscape increasingly covered with snow. The essence of a progression is that change in the preceding elements of the series cause the viewer to anticipate the change in the following elements. The rate of change thus must be even for this to work. The progression in "Winter Introduction" was also a process, but other forms of progressions need not portray processes as they were defined above. Such progressions, for example, may involve changes in color or value.

Visual elements may be related by being the still image equivalents of such motion picture techniques as pans and zooms. The images of drawings in "Summerend Song" were linked in this manner. In the sequence a close-up of a detail of a drawn image was followed by a sequence of slides which showed increasingly greater portions of the drawing.

Audio elements can function in a variety of different ways to integrate visual elements. Commentary may be used to clarify a unifying technique. An example of this was the commentary in "Winter

Introduction" - "the land whitened into the austere perfection of winter" - which stated the nature of the progression unifying the visuals. Audio elements have an innate quality of cohesiveness which can be used to integrate the images associated with them. We think of a commentary, a passage of music, or a sound effect, such as the sound of wind, as single entities and not as collections of words, groups of notes or numbers of sounds. The mere presence of an audio track provides some unity to the visuals in an audio visual work. This is particularly true with music. The unifying effect of audio elements is greatly enhanced when some relationship between it and the visual elements is established. The classic example of this is the narrative audio visual presentation. Here the images need only to be related to the verbal commentary for the work to achieve unity. The connections between the visual components are made via the audio component. Visual elements may be related to music through corresponding to the music's mood, as in the first part of "Spring Transition"; through following the music's rhythm pattern, as in the second part of "Spring Transition"; or through relating to the music's "subject matter", such as in "Collegiana". Sound effects may be related to visuals through subject matter.

In this discussion of unifying techniques I have been talking so far in terms of "linking" and "connecting" elements together as if to form a chain. This is a linear form of organization. I also employed a nonlinear means of unifying the elements of Rubaiyats in the use of motives. A motive is defined by Webster's Seventh New Collegiate Dictionary as "a recurrent thematic fragment usually treated developmentally in a musical composition." My first introduction to the use of motives was in Wagner's series of four operas Der Ring Des Nibelungen.

Wagner used musical fragments to tie fifteen hours of music together by introducing musical themes associated with characters, objects, events and emotions and then repeating them throughout the operas at appropriate times. Kurt Vonnegut did the same thing verbally in his book Slaughter House Five with the phrase, "So it goes." The phrase is introduced as the remark about death made by the Tralfamadorians, alien beings who perceive in four dimensions. From their perspective all events in time are fixed and simultaneously perceptible.<sup>1</sup> Theirs is the ultimate deterministic viewpoint. Vonnegut henceforth uses this phrase whenever the subject of death is mentioned in the book: "The axles of the cart were greased with the fat of dead animals. So it goes."<sup>2</sup>

The repetition of the motive serves to connect different sections of a work that otherwise would have no direct link. The motive, because it is a fragment - a line of music, a short phrase, or, in the case of Rubaiyats, a single image - is easy to fit into a section. It is employed to briefly reacquaint the audience with something it has perceived earlier in the work. The motive thus serves as an element in a linear sequence - musical, verbal, or visual - while referring back to its previous use in the piece. If this is done skillfully, flow of the work is not impeded while the overall integration is increased.

The motive has another function beyond that of an integrating

---

<sup>1</sup>Kurt Vonnegut Jr., Slaughterhouse Five or The Children's Crusade: A Duty-Dance with Death (New York: Dell Publishing Co., 1969), pp. 26-27.

<sup>2</sup>Ibid., p. 157



element. Although the motive is a fragment and thus would seem to be incapable of expressing complex ideas or emotions, it acquires this capacity through use. It does this through association. A motive begins to assume a connotation by the circumstances of its initial introduction and this connotation can be further enriched and expanded through each subsequent appearance. Thus the motive can be developed into a form of expressive shorthand through its increasing load of associations. This is the manner by which the initially insignificant phrase "so it goes" becomes a means for Vonnegut to comment about death. By the last chapter "so it goes" has acquired the colorations of mundanity and of horror and has become related to the Tralfamadorian concept of death as an eternally fixed event in a person's life which simultaneously exists with all other events in time. Vonnegut turns to the phrase to comment on the major personal and political events in his life:

Robert Kennedy, whose summer home is eight miles from the home I live in all year round was shot two nights ago. He died last night. So it goes.

Martin Luther King was shot a month ago. He died too. So it goes.

An every day my Government gives me a count of corpses created by military science in Vietnam. So it goes.

My father died many years ago now - of natural causes. So it goes. He was a sweet man. He was <sup>1</sup> a gun nut, too. He left me his guns. They rust.

I used several motives in Rubaiyats. The most important of these was the tombstone motive which appeared in seven sequences, and the Carol motive which appeared in five sequences. These motives primarily

---

<sup>1</sup>Ibid., p. 210.

functioned as integrating elements and to a lesser extent as expressive devices.

Another nonlinear means of organization is found in the ending of Rubaiyats. The same slides which introduced the work also end it, thus connecting the chain of visuals into a circle. This cyclic quality is specially emphasized in the commentary of "Ending":

This poem composed of pictures now is done.  
The turning trays have cycled like the sun,  
Thus dark and light return for each new dance  
Until the colors mix and blend to one.

This type of ending works as a unifying force because it gives a sense of form to the piece, one of a circle. It reminds the viewer of the beginning of the work and thus indirectly alludes to the intervening sections.

### The Temporal Dimension

#### The Nature of a Temporal Structure

An audio visual work is a three dimensional creation. It consists of two dimensional images arranged in a third dimension, time. The ultimate character of the work is as greatly influenced by the position of its images in time as it is by the nature of those images. The temporal dimension of an audio visual work is controlled by the audio component. In a mechanistic sense it is the set of pulses on the synchronization track which arranges the visuals in time. In a more practical sense, the audio elements of an audio visual work control the timing of the piece because they intrinsically have a temporal dimension. This dimension is flexible to varying degrees but once the audio components are selected and sequenced, the temporal framework of the presentation

has been formed.

A visual element acquires a temporal dimension when it is given a duration. The temporal dimension of an audio element, such as a piece of music, cannot be changed without altering the element. This is not true in the case of visual elements. It would be wrong to assume, however, that a viewer will perceive an image which stays on the screen for one second in the same manner as if the image had lingered on the screen for fifteen seconds. Consequently, duration of the visuals is an important aesthetic consideration.

The audio track sets limits on the time available to be subdivided into durations for the visuals and thus ultimately determines the number of visuals that can be employed if a certain effect is desired. Simply stated, the physical process of creating an audio visual work consists of assembling an audio component, sequencing a visual component, and then fitting the visual component within the temporal framework established by the audio component. This latter process usually involves adjusting both components.

One's perception of time is influenced by other factors than simply the interval that can be measured by a clock. For example, the reader of a short story experiences a sense of time which is independent of the reading time. The perception of a length of an interval of time is influenced by the events that take place within that interval. The concepts of slow and fast or long and short are relativistic ones. The temporal structure of an audio visual work must be adjusted to take this into account. The ultimate product should be perceived as having an appropriate sense of timing. The final decisions are necessarily subjective ones. The clock's role is to provide a means of handling

time; of quantifying it so one can make the necessary subjective decisions with a degree of accuracy.

### Temporal Structures of Narrative and Non-Narrative Audio Visual Works

To provide a better understanding of the structure of a non-narrative audio visual work I will begin by describing its counterpart, the narrative audio visual presentation. This form is characterized by organization which has as its central core a single, coherent verbal commentary that runs throughout the work. The visual elements complement the commentary. At best they amplify the ideas introduced verbally by the audio, such as slides in a travelogue, showing what can only be described with difficulty in words. At worst, the visuals serve as filler material, something to rest one's eyes on while concentrating on the commentary. The presentation of the visual elements, whether they are effectively or ineffectively used, is essentially determined by the commentary. The viewer will look to find a relationship between the visuals and the spoken word. Indeed, he will form such a relationship if at all possible and the more incompatible the imagery is with the commentary, the less satisfactory his experience of the work will be. (The one special exception would be the deliberate use of irony.) This tends to make the visual element subordinate to the audio component since they must relate to the commentary.

The structure of a narrative audio visual presentation is founded on the logic of language. Ideas are presented in a rational succession, with one connected to another in a linear fashion. Within this verbal framework the images are introduced as visualizations of the ideas expressed in the commentary. In practice this is a fairly simple process:

One produces a written script, uses it to assemble slides which illustrate the concepts in the script, marks the slide changes on the script, records the commentary, and then adds the synchronization signals using the marked script. One can, of course, assemble the slides first and then write the script, but the last three steps remain the same and the commentary still gives the final structure to the work.

The narrative form of organization has several advantages. First, the single commentary running through the work gives it an innate sense of unity. Second, there are no complicated timing problems because the timing of the audio is determined by the conventions of speech and the timing of the visuals is derived from the script. Third, the continuous presence of a verbal commentary tends to diminish the need to visually interrelate the imagery. Finally, the narrative structure is a familiar one and conceptually simple, thus it is fairly easy to work with. Some of the problems of the narrative form of organization largely derive from its verbal nature. First there is the problem of timing. Often ideas can be introduced verbally at a more rapid pace than they can be illustrated. It makes perfect logical and grammatical sense to say, "We travelled through forest, prairies, deserts, and mountains to reach Los Angeles." Such a sentence introduces five separate visual ideas in four seconds and thus as a structure for timing visuals it forces too fast a pace. The second problem is that many concepts that are expressed verbally are abstract to the point of being completely non-visual in nature. It is easy to verbalize and understand a phrase such as "a tradition of excellence," despite the fact that it is impossible to provide an image of a tradition of excellence. The narrative audio visual presentation organizes the visual component on a verbal structure,

and thus occasionally there are places where the two differing forms of communication, verbal and visual, are incompatible to the detriment of the work as a whole.

The non-narrative slide show avoids the limitations of a verbal core by abandoning it. Verbal commentary ceases to be the organizing structure of the work and becomes simply another element to be employed by the artist. The simplest form of the non-narrative approach would be a show in which a single piece of music provided a temporal structure for the visual component. In such a work the audio still sets the pace. The non-narrative approach utilized in Rubaiyats was more complex. Timing was provided by no single component, audio or visual, rather it was the result of expressive intent. Either the audio or visual component could determine the timing of any particular portion of the work and the emphasis on either component varied within the piece.

The essence of the non-narrative approach is freedom from any predetermined rules of structure. The audio track can be composed of combinations of verbal commentary, natural sounds, music, and silence. The sequencing and duration of these elements is flexible providing the artist with many options and making the task of forming a temporal framework out of them a complex one. The visual elements in a non-narrative audio visual work can also determine the duration of sections of the audio track. In general, the whole question of time must be directly addressed in a non-narrative work.

### Production Techniques

#### An Outline of the Procedures

The steps in producing a non-narrative audio visual work reflect

the flexibility of the medium's structure. First the visual and verbal components are assembled. There should be a general idea about the expressive content of the various elements, but initially each element is judged solely on its own merits. Once the components are assembled, they are arranged in a rough structure in which the sequence of visual elements is integrated with a corresponding sequence of audio elements. Once this rough structure is created, the individual elements which comprise it are altered in light of their function as units of a greater expressive whole.

An audio script is produced next. It establishes when each element of the audio track will be recorded. The various parts of the audio are recorded and assembled onto the audio track of the master tape. This audio track is the basis of the temporal structure of the entire work, thus it must also reflect the timing of the visual elements. Musical selections are altered, the lengths of silences and sound effects are changed, and commentary is expanded, changed or shortened to establish the desired relationship with the accompanying visuals. Once the audio track of the master tape has been recorded it is precisely timed so that the beginning and the end of each significant audio event is precisely determined. These figures in turn are used to produce a Synch Script. A Synch Script plots when each visual element is introduced and in addition, notes the type of dissolve to be used. Using the Synch Script, the synchronization signals are added to the master tape. All the components of the audio visual piece are now assembled and the work can be experienced for the first time as a whole. The artist's work is not finalized yet because adjustments must invariably be made in the audio and visual elements now that their

interrelationship is clearly established. Only after these final alterations and a final master tape is produced is the audio visual work complete.

The creation of a non-narrative audio visual work involves a great deal of "fiddling." The flexibility of this form of organization is enhanced by an open and experimental attitude. One organizational device that I adopted when working on Rubaiyats proved invaluable in maintaining this attitude. This was the board technique of planning. When an idea for a sequence of the show developed I prepared four separate three-by-five inch index cards. The first described the general theme or purpose of the sequence. The second and third cards described the audio and visual components. The fourth card contained critical comments and production notes. The cards were mounted on a board in columns labelled "sequencing", "audio", "visual", and "status". They were attached in a manner so that they could be easily replaced or relocated. The board allowed me to write down the entire structure of the audio visual production with a fair degree of detail while still permitting for major changes in sequencing or content to be recorded easily. The board served more as a creative tool than detailed script. Appendix A shows Rubaiyats' planning board in its final form.

A non-narrative audio visual presentation requires another special organizational technique, the preparation of a document called the Synch Script. The Synch Script is a means for indicating when the next visual element is introduced in the absence of any cue from the audio track. Beyond that, and more significantly, it is the means by which the artist works directly with the temporal dimension of his piece. The production of the Synch Script parallels the production of the actual audio visual



work. This production takes place in five phases: First, the audio track is assembled and timed. Second, the slide changes are plotted mathematically. Third, the mathematically determined slide changes are adjusted for aesthetic purposes. Fourth, these adjusted times are used to synchronize the master tape. Fifth, after viewing the tape critically, the timing of the audio and/or visual elements is adjusted. Throughout the last four stages the Synch Script serves as a creative tool for making and recording subjective decisions about timing.

#### Phase One: Recording and Timing the Audio Track

The first phase of producing a non-narrative audio visual work begins with the planning board. Once the audio elements have been finally sequenced, fundamental timing decisions can be made. Audio elements fit into two categories; those that have relatively fixed duration - spoken commentary, music, and some sound effects - and those that have flexible durations - silence and most sound effects. These latter elements provide most of the variability in the audio track. The interaction between the audio and visual elements must be considered at this stage and much of the timing worked out before the audio is actually recorded. The basic approach is that the fixed duration audio elements establish the timing parameters for the visual elements that accompany them, whereas the duration of the flexible audio elements is determined by the timing needs of their corresponding visual elements. An example of a fixed audio element determining the pacing of the visuals is "Dream" where all the slide changes were keyed to the commentary. A second example of this was the music selection, "Trip to Sligo", in "Spring Transition". Here the visuals were sequenced and timed to

correspond with the cycles in the music. An example where the visuals pace the audio is "Winter Introduction". Eight slides (40 through 47) formed a progression from a landscape dusted with snow to undulating mounds of white. I wanted it to be a quiet, slow, even sequence so I planned for eight five-second slide durations for a total sequence duration of forty seconds. The sequence began with four seconds of commentary. The flexible audio element, in this case silence, was thus determined by the timing requirements of the visuals to be thirty-six seconds.

These basic timing decisions are made while writing the Master Tape Recording Sheet ( Appendix B). This document charts out when each audio element will occur on the audio track and what its duration will be. The Master Tape Recording Sheet can then be used to create the audio portion of the Master Tape. This can be done by prerecording all the audio elements (except, of course, silence) and then transferring them onto one or more master tape audio tracks. It is very desirable to do this on a four track tape recorder with a capacity for simultaneous synchronization. Such a recorder allows each of the four tracks to be recorded or played back without affecting the other tracks. A four track recorder allows three tracks for the audio and one track for synchronization signals. When two or more audio elements occur simultaneously, they are recorded on separate tracks so each element can be altered later individually if a need arises. These separate audio tracks will be mixed to produce a single track on the final Master Tape.

When the audio is recorded on the Master Tape, a reference signal is added to the beginning of the tape prior to the commencement of the

first audio element. This reference signal is used to start the stopwatch which times the audio track. Timing of the master tape is necessary to obtain very precise information on the actual times of each audio event. The machine on which this is done must be the same machine that will record the synchronization signals since the speeds of different machines vary slightly. The Master Tape Recording Sheet is used to make an outline of each significant audio event, such as when the first and last notes of a music selection occur. Then the artist starts a stopwatch on the reference signal and enters the time on the watch, ie - the running time, when each listed event occurs. Running times are used so that any timing errors are nonaccumulative. Durations of audio elements, such as the length of a musical selection, are derived from subtracting the running time of the beginning of the audio element from that of its end, in this case, the time of the first note from the time of the last note. The document produced by this procedure is called the Timing Analysis (see Appendix C). The times recorded on the Timing Analysis should correspond closely to the planned times on the Master Tape Recording Sheet. Variables in the recording process inevitably cause some deviation between planned and actual times. It is the Timing Analysis that shows the actual temporal dimension of the audio visual work. It is this document that is used in the next steps to create the synchronization script.

#### Phase Two: Calculating Slide Changes Mathematically

The second phase in producing a non-narrative audio visual work is to calculate the slide changes mathematically. To do this the artist must have assembled all the visual elements and he must know roughly

how these elements will correspond to the audio elements. This planning should have been done when the Master Tape Recording Sheet was written. Subdivisions of the entire presentation called "timing segments" play an important role in this phase because they are units used in the calculations. Rubaiyats was organized into fifteen separate sequences. In most cases these sequences also were used as timing segments because the pacing was consistent within the sequence. One particularly complex sequence - "Mount Hope Dance" - was subdivided into several timing segments.

Before describing the procedures used to calculate slide changes, a few terms must be defined:

Running Time. Running time begins with the reference signal on the Master Tape. An event that occurs ten seconds after the reference signal has a running time of ten seconds.

Entry Time. Entry time is the running time of a slide change. An entry time marks the running time of the synchronization signal recorded on the synchronization track of the Master Tape. This signal will cause the slide to appear on the screen. Entry times are written in front of a slide, example - 2:01 Slide A.

Image Duration. This is the interval of time a slide is on the screen. The image duration for a slide can be calculated by subtracting its entry time from the entry time of the slide that follows it. Example-2:01 Slide A 2:05 Slide B  
Image Duration Slide A = 2:05-2:01= :04 seconds

Timing Segment. A timing segment is an interval of time used in determining the timing of a portion of the audio visual work. It is a means of making the timing procedure manageable, by sub-

dividing a varying paced work into small units within which the timing follows a particular pattern.

Segment Length. The duration of a timing segment is called the segment length. It is calculated by subtracting the entry time of the first slide in the timing segment from the entry time of the first slide in the following segment.

With these terms defined, I can now describe the mathematics of calculating slide changes. First, using the times recorded on the Timing Analysis, the segment lengths of the timing segments are determined. The segment length is divided by the number of slides that appear within the timing segment to obtain a figure called the calculated image duration. Example:

$$\begin{aligned}\text{segment length} &= 15 \text{ seconds} \\ \text{number of slides in segment} &= 4 \\ \text{calculated image duration} &= 15 \div 4 = 3.75\end{aligned}$$

The calculated image duration can then be used to determine the entry times of the slides. The first slide change is at the beginning of the segment, thus it comes directly from the running time listed on the timing analysis. The calculated image duration is added to this figure to determine the entry time of the second slide in the segment. The entry time of the third slide is determined by adding the calculated image duration to the entry time of the second slide. This process is repeated until the entry times of all the slides in the segment have been calculated.

Example:

$$\begin{aligned}\text{calculated image duration} &= :03.75 \\ \text{running time of beginning of timing segment} &= 3:00 \\ \text{total slides in segment} &= 4\end{aligned}$$

		3:00	slide one
3:00	+ :03.75	= 3:03.75	slide two
3:03.75	+ :03.75	= 3:07.5	slide three
3:07.5	+ :03.75	= 3:11.25	slide four

This process is very simple if done on a printing calculator. One's mathematics can be checked by adding the calculated image duration to the entry time of the last slide, the resulting figure should be the running time of the next timing segment noted on the timing analysis.

### Phase Three: Aesthetic Adjustments

#### The Use of Mathematics

The entry times that were mathematically calculated in phase two serve as tools for making subjective decisions about timing in the third phase of producing a non-narrative audio visual piece. I found that through mathematics I could more easily manipulate the temporal dimension of the work. Working with numbers made certain principles clear. First, the sum of the image durations of the slides in a segment had to equal the segment length. The segment length thus defines the limits of variation. If I wanted to add a second to the image duration of a slide in a timing segment I had to subtract that second from the image durations of the other slides in the segment so that segment length remained the same. Secondly, a calculated image duration is the product of two figures - the number of slides in a segment and the segment length; thus it is also an average. An average, despite what variation I could introduce in the individual image durations within a segment, the calculated image duration served as an indicator of the overall pace of the segment. If the slides in a segment had a calculated image duration of six seconds the segment had a slow pace while a calculated

image duration of two seconds meant a fast pace. To alter the pace of a segment I had to either change the number of slides within the segment or alter the segment length by re-recording that portion of the audio track.

With mathematical techniques I was able to solve some complicated timing problems in respect to matching the visuals with music. The music for the second part of "Spring Transition" repeats a musical theme twelve times. This gives the song a cyclic sense. I wanted a short sequence of two or three images to correspond to each cycle. These sequences were short progressions such as the flowering of an apple tree. Combinations of the cyclic music and the images that progressed in time was intended to convey a feeling of rolling forward. To effect this combination I analyzed the song in detail noting the running time for the beginning of each cycle in the song. Each cycle became a timing segment. When I determined the calculated image durations, they corresponded closely with the music and each image sequence began with the first note of each musical cycle.

The third phase of production involves making aesthetic decisions about the use of time. These decisions are made abstractly in the sense that they are made on paper; one will not see the result until the fifth and final phase. Much of the thinking behind these decisions is based on "feel"; there is no way to put it more concretely. However, there are a few general aesthetic concepts which I used to guide my thinking while producing Rubaiyats. These are the concepts of weight, pace and rhythm.

## Weight

The longer an image is on the screen the more "weight" it has. "Weight" is my term for a feeling of significance, of emphasis, and of influence on the viewer. An image's weight should be related to its own content and to its significance to the work as a whole. An image can become too "heavy" if given more weight than it can bear. Then it becomes boring or incongruous. Weight is a relative quality. A slide will have more weight if its image duration is significantly longer than that of the preceding slides and its weight diminishes the closer its image duration approaches that of the preceding slide. An image's weight, then, is partly a function of contrast. It is also affected by the context of the audio elements with which an image appears. A verbal commentary allows an image to remain on the screen longer without becoming too heavy. Silence, on the other hand, concentrates the viewer's attention on the image and thus makes weight critical. The more closely an image is related to a verbal commentary, the more weight it acquires, since the audio reinforces the significance of the image's content.

The process of weighting images is done by changing the calculated image duration of the slides within a time segment, lengthening some while shortening others. Besides the considerations of contrast and context which help determine an image's weight, there are also artistic considerations. Weighting images goes beyond the negative aspect of avoiding heaviness. It is an expressive technique for emphasizing an image, of showing where the artist's strongest interests lie. It is also a means of adding variety.



## Pace

Pace is a less abstract concept than weight. Pace is the perception of the rate of change, and is expressed in such terms as "fast paced" or "slow paced". Pace is partly a function of image durations of the slides; the shorter the image duration of the slides in a time segment, the more rapid the pace will seem. Because pace is the perception of the rate change, there are other factors that affect the sense of pace beyond a simple matter of image durations. First, pace is relative; if the image duration of the visuals in a time segment are four seconds, the pace will seem fast if the image durations in the preceding segment were eight seconds and it will seem slow if the preceding image durations were two seconds. Secondly, the subject matter of the images influences pace. The more variation there is in the content of the images in a given span of time, the greater the amount of change and hence the more rapid the sense of pace. This aspect is more easily recognized when one observes the converse of this principle. If a series of images vary only slightly or not at all, the pace will seem slow even if the image durations of the slides are very short. Subject matter influences pace in another way when the images represent a phenomenon which has connotations of rapid or slow change. Put more concretely, still images of a rapid paced event such as dancing the Charleston may be perceived as a "slow motion" study despite rapid rate of slide changes. Image sequences depicting phenomenon which have slow rates of change, such as seasonal change or the growth of plants, will have their feeling of pace affected by their "speeded-up" subject matter. Finally, the audio influences pace. This is done primarily through the interreaction with the pace of the audio elements and that of the

visual elements. The effect of music is especially powerful since pace is intrinsic to the medium and the pace of a piece of music is readily discerned by an audience. Other audio elements have their own, if less readily discerned, paces which must be taken into consideration.

When one is actually determining the pace of the visual elements in a time segment altering image durations is the most flexible means for establishing a desired pace. The first decisions about pacing should have been made when the Master Tape Recording Sheet was written and when the length of the time segments could be easily changed. At the third stage in the making of a Synch Script, pace is altered by increasing or decreasing the number of visuals that appear within a time segment. A fast-paced thirty second time segment might contain fifteen images for an average image duration of two seconds. To slow down the pace of that time segment one might decrease the number of images to five, thus increasing the average image duration to six seconds. The more variable the image durations are within a time segment, the more difficult it is for the viewer to perceive the rate of change and thus the sense of pace is obscured. The effect of pace is most strongly felt when the pace changes, thus it is important not to view timing segments in isolation.

Decisions regarding pace are ultimately complex aesthetic decisions. In Rubaiyats I generally followed these concepts when I determined the pace of the various sequences: I matched the pace of the visuals with the overall mood of the sequence, using a fast pace for the upbeat sequences and a slower pace for the quieter sequences. I attempted to keep the pace varied. Finally, I matched the pace of the visual elements with that of the audio elements. This is most apparent with the

musical selections.

### Rhythm

Rhythm is a concept related to pace. Rhythm is the perception of the pattern of change. Rhythm in music is thought of in terms of a pattern of beats; in an audio visual work the pattern is formed by image changes. In working with rhythm it is important to recognize that if the viewer does not perceive a pattern, at least subconsciously, then rhythm does not exist. For that reason, I believe that it is most realistic for the audio visual artist to confine himself to simple rhythms. The following are what I consider to be the most useful rhythm patterns and their effects:

Arhythm is the absence of rhythm resulting from varying image durations within a timing segment. It is neutral in expressive content.

A steady rhythm is the product of equal image durations within a timing segment. Its expressive effect is largely determined by its pacing. Rapidly paced, it is exciting and compelling, and slowly paced, it is calming. This rhythm, regardless of pace, can become tedious if employed too long.

A rhythm dissonance is the product of connecting two differently paced steady rhythms. Its effect is the result of the denial of expectations and thus varies with the nature of the two rhythms connected and the abruptness of the change of pace.

A descending rhythm is produced by progressively lengthening the image durations of a series of slides. Its effect is a calming one.

An ascending rhythm is produced by progressively shortening the image durations of a series of images. Its effect is one of excitement.

### Dissolves

The third phase of producing a non-narrative audio visual work involves more than making decisions about weight, pace, and rhythm. The means by which the images appear on the screen must be decided. All but the most elementary dissolve units offer a choice between a very rapid change called a "cut" and a "dissolve" where one image fades out while the succeeding image simultaneously fades in. A dissolve thus always includes time when the two images are blended together. The time that it takes to complete a dissolve is referred to as the "dissolve rate". Different dissolve units offer the artist a variety of options for controlling the dissolve rate. The unit I used in synchronizing Rubaiyats recorded only a dissolve command. The dissolve rate was set manually by a knob on the unit. Other more expensive units permit the dissolve rate to be programmed along with the dissolve command. In some cases the dissolve rate is infinitely variable, in others the unit offers a selection from a number of predetermined rates. Some variation in the dissolve rate is highly desirable even if the rate must be adjusted manually during the presentation of the audio visual work. This procedure is not without its risks; if a dissolve rate is set so that a dissolve is in mid-execution when a new dissolve command is given, the remainder of the audio visual show will be out of synch. As a result, I kept the manual adjustments to the dissolve rate to a minimum.

The first decision in determining slide changes is to choose between a dissolve and a cut. A cut causes an abrupt change in images. This abruptness accentuates the change and thus tends to enhance the sense of rhythm. It also maximizes the length of time that the audience can view an image clearly, i.e. - in an unblended state. The blending of imagery that results from a dissolve literally and aesthetically integrates two images. This tends to obscure rhythm by making the pattern of change less discernable. Images can also be obscured by dissolves if a significant portion of their time on the screen is spent in a blended state, i.e. - with a dissolve in progress. The dissolve itself provides visual activity which can be employed for aesthetic reasons other than smoothing the transitions between images. It can provide some animation effects, cause an image to fade in or out of nothingness if it is succeeded or preceded by a black slide, or simply add visual interest to a long image duration.

The differing nature and effects of cuts and dissolves makes choosing which type of slide change to use an aesthetically important decision, yet a relatively clear-cut one. Once this has been done, the dissolve rates must be determined. When I worked on Rubaiyats this was a relatively simple matter due to the limitations of my equipment. To prevent any synchronization problems, the dissolve rate was set below the shortest duration time of any slide that was changed by a dissolve. The dissolve rate was manually readjusted during the presentation of the work to provide whatever variation was needed. In a subsequent commercial audio visual work I was able to program variable dissolve rates. When such programming is possible, another set of aesthetic decisions must be made image by image just as the

decisions about timing and type of change were made. By the end of the third phase however, the basic artistic form of the work has been determined and the variable dissolve rates simply enhance that form. Primarily this consists of relating the dissolve rate to the image duration so that a pleasing balance is established.

### The Synch Script

When phase three is complete, the mathematically determined calculated image duration times of the visual elements and their corresponding entry times have been adjusted to fit artistic requirements. These adjusted times plus information on type of slide change (and dissolve rate, equipment permitting) form the Synch Script. The Synch Script functions much like a musical score for it tells when and how the visual elements of the work will appear. It consists of a slide number and description, the running time of each slide change, the dissolve type, the dissolve rate (if applicable). If during certain segments of the audio visual work slide changes are keyed to words in the commentary, these words, rather than running times of the slide changes, are entered on the Synch Script. Appendix D shows a page from the Synch Script of Rubaiyats.

### Phases Four and Five, Recording and Adjusting the Synchronization Track

The fourth phase in producing a non-narrative audio visual work is to use the Synch Script to record the synchronization signals on the Master Tape. The means by which this is done will vary slightly with differing equipment, but the principle remains the same. The audio track is played on the recorder and the reference signal on it is used to start a stopwatch. Using the Synch Script and the stopwatch

the artist records the synchronization signals on to the synchronization track of the tape. A simplified version of the Synch Script which listed only running times (or key words) and dissolve type was used to synchronize Rubaiyats (See Appendix E). With the script I found it was unnecessary, indeed distracting, to actually see the slide changes. The important point at this phase is to follow the script as precisely as possible. This will facilitate making adjustments in the fifth and final phase of production.

In the prior phases, the audio visual work as a whole could be approached only abstractly. One is forced to hear or view the audio and visual components separately and then try to imagine the effect of their combination. The situation is not unlike that of a composer writing a score for an orchestra. The last phase of production is the playing of the "score". Once the audio visual piece is played, adjustments are inevitably necessary. Ultimately all the aesthetic decisions made in the earlier phases of scripting must work subjectively. Theoretical principles will not rescue a sequence that doesn't work. When dealing in a medium as complex as audio visual one cannot hope to anticipate all the interreactions of its component elements.

The principal function of the Synch Script in the final phase is to aid in making adjustments to the audio visual work. Timing changes, dissolve changes and the addition or deletion of images are recorded on the script so that it is always current. Changes to the audio that alter the duration of the work require a complete revision of the affected portion of the Synch Script where phase one through four are repeated. The Synch Script, besides recording changes, enables one to see the effect of any change in terms of the entire sequence. For ex-

ample, lengthening the image duration of one visual element necessarily shortens the image duration of the following element. The artist may choose to distribute that time loss over the entire sequence. A Synch Script is invaluable in figuring such adjustments. The Synch Script also allows one to develop a sense of the varying effects of different duration times and dissolves. Adjustments thus can be made in precise units of seconds rather than in vague terms such as "longer" or "shorter". Finally, the Synch Script allows one to accurately identify individual synchronization signals on the tape without playing the entire tape. This is a tremendous convenience in the case of a long show.

Once the audio visual piece has been reviewed and adjusted, it is almost complete. The Master Tape with adjustments is finalized. The sole remaining task is to dub the Master Tape onto a stereo tape or cassette. In the dubbing process the three audio tracks are mixed and their levels adjusted. The synchronization track is dubbed without any changes. The standard procedure is to use the left track for audio and the right track for synchronization. With the production of this final cassette or tape, the audio visual presentation is finished.

If the procedures I have discussed sound complex, it is because they are. The audio visual medium is a complex one, especially when it is developed to its full potential. These techniques were developed to meet my own aesthetic needs for flexible script planning and a concrete way of manipulating the temporal dimension of the work. In practice the mathematical procedures for writing a Synch Script become quite easy and rapid, especially after one acquires a feel for the subjective effects of different image durations. In a subsequent commercial audio visual presentation, Nazareth, the practicality of these



techniques was further demonstrated to me. The Master Tape was produced in a commercial recording studio which charged by the hour. The Master Tape Recording Sheet allowed the audio track to be assembled in a very efficient, and thus inexpensive, manner. This was true despite the fact that the audio for Nazareth was very complex. All the aesthetic decisions were made before entering the studio. The Synch Script also proved to have time-saving, and thus money-saving, advantages when the synchronization track was recorded. There is now equipment available that would allow a Synch Script to be keypunched directly into a programmer which stores it in memory until it is automatically recorded on tape.

### Technical Considerations

Before concluding this discussion on producing non-narrative audio visual presentations, I would like to emphasize the importance of good audio technique. It is well beyond the scope of this report to discuss the means by which this is achieved. It mostly depends upon a thorough understanding of the specific pieces of equipment that one is using. My initial impression when I started Rubaiyats was that making the audio tape would be a simple procedure. It was not. Today's audiences have come to expect a high degree of audio quality and find it distracting when it is not present. The audio visual artist must recognize that the audio component of his work will require much of this time and attention. Besides providing sound, the audio track forms the basis of the work's temporal structure. Inaccuracy in assembling the master tape results in timing difficulties with the visual elements.

Listed below are the major considerations when one is planning

to prepare the audio track:

The basic equipment for preparing an audio track is two tape decks, a turntable (if records are a source of music), and an audio mixer. One tape deck should be a four track deck with simultaneous synchronization capacity. If such equipment is not available the artist should consider engaging the services of a professional recording studio. The costs are not prohibitive if one is fully prepared in advance.

The basic technique of recording a master tape is to record overlapping audio elements on separate tracks. Level adjustment and mixing can be done with the audio mixer when the final stereo cassette or tape is prepared.

The most common mistake I made as a novice recorder was not paying sufficient attention to the recording levels. When recording the synchronization track, which is usually a 1000HZ tone, it is especially important not to record it at too high a level, otherwise the sound will bleed onto the audio tracks.

The commentary will take the longest time to record properly.

Music selections may be altered in many cases by tape splicing or by cross fading. The latter technique involves recording different portions of the music on two different tracks and then switching from one track to the other during mixing.

The equipment difficulties that I encountered while working on Rubaiyats would be only of casual interest to an audio visual artist. This is because advances in technology have eliminated them. At the time I was assembling equipment to synchronize and show my presentation I was faced with a serious problem. The dissolve unit available for

my use through the Rochester Institute of Technology was an obsolete Kodak model with a single dissolve rate and a minimum time between dissolves of three seconds. New dissolve units were prohibitively expensive. I finally bought a used dissolve unit, a Media Master 400 Dissolve Control manufactured by Columbia Scientific Industries. This unit was primarily designed to be operated manually or to be programmed through a separate programmer unit. To use the dissolve unit without a programmer I found it necessary to purchase a Kodak Carousel Sound Synchronizer Model 3. I then discovered that I had to amplify the output signal from the tape source in order to activate the Kodak synchronizer. To accomplish this I had a special one-half ampere amplifier built. The output from the synchronization track fed into the amplifier which connected to the sound synchronizer which connected to the dissolve unit. The system is complicated and caused me several problems until it was debugged. There are now dissolve units on the market which cost less new than my used unit plus the necessary auxiliary equipment. They have all the capabilities of my set-up and connect directly to the tape outlet.

A technical problem of more general interest that I encountered was that of mounting my slides. The ideal slide mount for an audio visual production would have the following characteristics; it would not jam during projection, it would permit accurate registration for critical dissolves, and it would not permit the slide to pop out of focus once it was warmed by the projector lamp. A mount that meets all these specifications is the Wess mount. Wess mounts are hinged plastic mounts with anti-newton glass and registration pins that fit into the slide's sprocket holes. They will only fit into eighty slide capacity

Kodak slide trays thus limiting the number of images in a two projector show to a maximum of one hundred and sixty. I found this unacceptable for Rubaiyats. One should also be aware that the pin registration feature usually requires a camera modification before the sprocket holes of the slides it produces can be used to center the slide in the mount.

I found that to use one hundred and forty slide capacity trays I had to use glassless slide mounts. Cardboard slide mounts have a tendency to jam when the humidity changes so I eliminated that alternative. I ended up trying two different plastic mounts, the Kaiser mount and the Pakon mount. The Kaiser mount comes in two parts and is pin registered in a manner similar to the Wess Mounts. The difficulty with these mounts is that an expensive mounting device must be purchased to assemble the two halves. Although I devised a means to assemble the slide mounts without purchasing the mounting device, I found that they tended to jam due to their thickness. The Pakon mounts did not jam and these were the mounts I finally used for the slides in Rubaiyats. Pakon mounts hold the slide frame in place by the pressure of the two sides of the mount. It is designed to permit the slide to move slightly within the mount thus diminishing its tendency to pop out of focus when heated by the lamp. This feature makes exact repetition of the registration of two images impossible. There are four times in Rubaiyats where perfect registration was desirable. While I find it annoying that the Pakon mounts would not permit this, I do not feel that the slight variation in registration detracts seriously from the work.

A final note is desirable on the selection of slide projectors. The audio visual industry has standardized on Kodak slide projectors;

either the Carousel or the Ektagraphic models. The latter are more suitable for audio visual presentations because they have a mechanism which registers the slides within the projection chamber. The projectors used should be tested for quietness, should be the same model, and should be equipped with the same type of lens. The projection lamps used should be matched, i.e. - they should be purchased together and used together so that they age similarly. Failure to have matched bulbs can result in alternating color variations in the imagery.

### III. RUBAIYATS AS A WORK OF ART

Having discussed the audio visual medium in a broad manner and having considered specific aesthetic and organizational techniques related to its non-narrative form, I will now concentrate on the product of my thesis project, Rubaiyats. The following two parts of this report will parallel the actual creative process in that the first part will concern itself with the individual elements that comprise Rubaiyats and the second part will deal with the work as a single entity. The function of the audio and visual elements will be addressed broadly in the first part of this discussion and more specifically when I discuss Rubaiyats as a whole.

#### Photography

The major effort in creating Rubaiyats was the creation of the photographic imagery. I took approximately four thousand slides over a period of one-and-one-half years to produce the two hundred and twenty-six photographic images used in Rubaiyats. Besides forming the greatest physical bulk of the work, photography served two major expressive functions. The first of these was that it documented my interests in the world around me. The basic "rule" I applied when I began making photographs for Rubaiyats was that I would photograph whatever attracted me and then later form the audio visual work from the resulting assemblage of photographs. Photography truly became a means of introspection. Much of the self-portrait aspect of Rubaiyats

derives from the inclusion or omission of subject matter. Most of the assembled subject matter could be found in my previous photographic work. The preponderance of images were concerned with nature or with Carol. The pictures of people in the wedding sequence were taken by amateur photographers whose identities were unknown to me. Subjects which assumed significance as the photographs accumulated were the sea, the greenhouse, my apartment, and dance. Each of these subjects eventually formed the basis for separate sequences.

The second expressive function of photography in Rubaiyats was to communicate that subtle emotional quality which I defined in my thesis proposal as "tone." It is photography's capacity for conveying tone that has always been for me the chief attraction of the medium. Tone is that special emotional effect of a good photograph that lies just beyond rational description. The quiet and subtle quality of tone often makes it difficult to clearly distinguish in a single photograph. In an audio visual work the functioning of cumulative effect reinforces the tonal quality of the imagery providing that quality is consistent. This potential of the audio visual medium represented for me an opportunity to express a complex emotional relationship that I felt with the universe. My choice of subject matter reflected those situations where I felt that emotion most strongly. The images I produced were manifestations of that emotion.

My basic approach to making photographs was an active form of meditation. The process of creating a photograph involved an awareness of two realities; that of the subject matter and that of the photographic process. In the first case, I tried to realize as directly as possible the visual qualities of the subject matter, be it an

object, a landscape, or a person. I sought to eliminate the filters of perception and to concentrate intently on the actual visual phenomenon before my eyes. In the second case, I had to be aware of how the photographic process in both its optical and chemical aspects was altering the visual phenomenon before me. The nature of slide photography, where there is little opportunity for image manipulation once the exposure is made, forces the photographer to make all his decisions about the final image at the time that the slide is taken. The realities of reciprocity, depth-of-field, focal length, latitude, emulsion characteristics, polarization, shutter speed, and exposure are as equally significant to the appearance of the photographic image as the visual qualities of the subject matter itself.

As I progressed in my work on Rubaiyats my shooting sessions became periods of deep concentration on these dual realities of image making. When I view the photographs produced at those sessions, the intensity of those moments floods back. I remember those times distinctly and they stand sharply defined against the blurred and fading times between.

These twin realities of subject matter and photographic process were acted upon by a third force to produce the photographic images used in Rubaiyats. That third force was, of course, myself. The photographer must establish some form of relationship with these two realities. Both subject matter and photographic process may be altered to a degree but they also must be accommodated. The pattern of alteration and acceptance is different with each photographer. The form that pattern takes is often quite revealing about the unseen personage behind the lens. Indeed it was an avowed intent of the thesis to



"form a tonal self-portrait."

The pattern of my relationship with subject matter was fairly consistent throughout the period I worked on Rubaiyats. The subject matter in terms of broad categories was fairly limited; the natural environment, man-made objects within the natural environment (Mount Hope Cemetery, Highland Park Conservatory, and my apartment), and Carol. Even these categories might be lumped together into the broad grouping of situations where I felt most clearly the force of the universe. I find that force working most strongly in that portion of our environment which we exclude from our day-to-day lives and call "nature." The man-made objects I concentrated on were objects that had been or were being acted on by nature. Carol in Rubaiyats becomes a manifestation of nature, and my approach to photographing her was very similar to my approach to photographing other natural subjects. Even the wedding sequence images were done as images of objects, i.e. - snapshots, rather than as directly perceived images. My basic approach to my subject matter reflected the significance of the force that I felt it manifested. I wanted to contemplate my subjects through my photography; to have them define my images rather than vice versa. This does not mean I went out to objectively "document" my chosen subjects. My attitude was the same as that of a Japanese artist in the apocryphal story, who when asked why he had not begun his painting of a rock replied, "I am not yet that rock." I attempted to make my images in sympathy with the force that I felt. To do this I would approach my subject with an open and receptive attitude in order to develop some feeling for its force. This was basically not an intellectual process. My intellect came into play when I attempted to create an image in

response to my feelings.

The function of the photographic process in my image-making was to realize in a concrete form those feelings generated by the subject matter. That did not mean simply pointing my lens at an awe-inspiring object and recording it. I wanted to record the awe as much as the object. The tools I had at my disposal are the same as those available to any photographic craftsman. They represent no innovations. The important point is that I used photographic technique to produce images truer to my feelings about the subject matter than to the subject's visual characteristics.

My photographic techniques were performed at the time of exposure. They represent the gentler forms of image manipulation. I made a minimum of three bracketed exposures not primarily to obtain a "correct" exposure, but to produce a series of images with different color and value ranges. When working with Kodachrome I used the film's greater latitude to provide a range of five images of my subject, all with different visual qualities. I photographed from a tripod to insure that my bracketed exposures would be otherwise identical. I was also very selective in my framing to isolate the aspect of the subject that formed an image that best reflected the feeling the subject evoked. I made extensive use of the optical characteristics of focal lengths. I primarily used telephoto lens for their effect of visual compression and secondarily to isolate a distant part of a landscape. Visual compression was particularly important because it enabled me to establish or emphasize relationships between objects that would otherwise be separated by the conceptions of foreground and background. Slides 84, 132, 183 and 269 are examples of this technique. I used the macro lens

primarily as a means of concentrating on normally overlooked aspects of my subjects. It was a tool for visual discovery and a way of altering the viewer's perception of an object by presenting a strong image from a new perspective. Slides 94, 177, 208 and 258 are examples of this technique. I made frequent use of wide angle lenses' special perspective to establish a sense of flowing motion in my imagery or to give special emphasis to an object in the foreground. Slides 141 and 253 are examples of the former use of wide angle perspective and slides 128 and 181 are examples of the latter. I used a tripod extensively not only to insure the same composition on bracketed exposures, but also to have a full range of options in respect to depth-in-field. To take full advantage of telephoto compression many of my telephoto images were shot at F32 with shutter speeds which made a tripod absolutely necessary. Finally I occasionally used electronic flash to create a photographic image that reflected an inner vision of the subject rather than the subject itself. Slides 63 and 86 represent such images.

The question of photographic style in Rubaiyats is complicated by several factors. The first is that my photography inevitably evolved over the year and a half that I worked on the project. Ultimately I had to halt my photographic activity and work with the images I had despite the temptation to change my imagery. For the sake of comparison within a specific subject, slide 160 is a leaf image made early in my work on Rubaiyats, and slides 7 and 265 were made a year later. A year separates the ocean images 128 and 129 from later images 130 and 131 made at the same location. The greenhouse and Carol sequences were almost completely rephotographed at the very end of the project

whereas time limitations forced me to use older work for the second half of the spring transition sequence. Another factor complicating the question of photographic style is my intention to include a wide diversity of imagery in Rubaiyats. One would have difficulty explaining the stylistic relationship between slides 86 and 270. Finally, I have never consciously tried to work in a particular style or develop one. I believe style is a convenient label that is applied to an artist's work. As a label it has advantages and disadvantages. As an aesthetic goal the striving for a unique style has a stunting effect on artistic growth.

In retrospect I sense certain stylistic qualities in the photography for Rubaiyats, although they do not always apply to all the images in the work. One of the stylistic elements of Rubaiyats is a sense of order in the images. Part of this is due to the requirement that the images be understandable in the brief period they are on the screen. It is also partly due to my own desire to find order and my tendency to see order as a manifestation of the force that I felt in nature. Order manifested itself initially in my photographs in the form of simplicity which approached, but never became, abstraction. Slides 46, 87, 134, 209 and 263 represent this kind of simplicity. One of the effects of simplicity is to make the dynamic qualities of form more evident. Slides 87, 139 and 209 are examples of this quality at work. Order here is not static (as the word sometimes connotes); it creates a flow of energy. This flow tends to be balanced in my images. As my work progressed, many of my photographs became increasingly complex while still reflecting the same feeling of balance and order. Harmony became the equivalent of simplicity. Thus I feel that slides

168, 268 and 279 are stylistically related to my simpler images.

Movement was another important concern of mine. This is easy to see in my images of dance, but it is also present in terms of visual movement in my landscape and object photographs. Again the words "flowing" and "balanced" come to my mind when I think of the kind of movement in which I was most interested. Examples of my conception of visual movement are slides 138, 181 and 253.

One of the effects I strived for in my photography was a sense of richness. I wanted to use my camera to uncover the visual qualities of the environment which tend to be ignored by everyday perception. Photography is, for me, largely involved with the unabashed sensual enjoyment of color, form, and texture. I used my camera to concentrate on these qualities and to serve them up to the viewer in a forceful form.

The final component of my photographic style in Rubaiyats is the quality of its tone. The aforementioned qualities of order, movement and richness are easy to discuss in comparison. They are not, however, what forms the most distinct quality of images in Rubaiyats. The emotional state which the images evoke is what I consider to be the fundamental stylistic component of the work. It is basically the product of my attitude towards my subject matter and my own personality. In describing the tone of my work, I recognize that I am engaging in a task of dubious validity. All I can actually describe is my own feelings about the images. I find the photographs quiet, but with a deep current of emotion running through them. This emotion ranges from melancholy to joy, but it is always tempered with a respect and fascination for the natural world. My photographs are tinged with

mystery and animism. They are the product of an identification with a force outside myself.

### Drawings

Three sequences in *Rubaiyats*, "Dream", "Mount Hope Dance" and "Summerend Song", use drawn rather than photographic imagery. My interest in drawing predates my interest in photography and for over a decade I have worked in both modes of expression. At several times I have tried to combine the two mediums with varying degrees of success. My previous audio visual work, An Autobiography Comprised of Artifacts, consisted almost entirely of images from my sketchbooks. By the time I began work on Rubaiyats I had decided to include drawn images in the work. This decision marked a resolution to a personal conflict over which of the two mediums, drawing or photography, best suited my artistic aims. Basically I decided that both did, but in different ways. The audio visual medium allowed me to combine the two kinds of imagery in an artwork without actually merging their identities.

I wanted to include drawings in Rubaiyats for two reasons. The first was that if Rubaiyats was to be a "tonal self-portrait", then it should include the form of expression that I have worked in for so many years. The second reason is that I saw the drawn images as complementing those produced by photography. Photographic imagery is rooted in reality, whereas drawn imagery is, for me, rooted in imagination. Before I became seriously involved in photography, much of my drawing was concerned with conveying the special feeling I felt in the natural world. I remember in particular the summer I spent before coming to Rochester when I returned to a particular landscape again

and again trying to convey its effect on me through my drawings. In graduate school I discovered photography could do that job better. Henceforth, my drawing became more concerned with inward visions than outward ones. Thus the inclusion of drawings in Rubaiyats served to widen the scope of its vision.

One major problem of including drawings with photographs was that of compatability. The drawings and photographs had to be of equal artistic quality regardless of their other differences. The images themselves also had to have a degree of visual compatability. I did not, for example, plan to combine boldly colored hard-edge abstract drawings with muted landscape photographs. This did not turn out to be a difficulty since the same qualities of form, line, color, and composition naturally appeal to me in either medium. The final problem was that of making a smooth transition between the two kinds of imagery. The solutions to this problem varied in each sequence. They will be addressed individually when I discuss Rubaiyats as a whole.

When including drawings in an audio visual work one must be aware that a slide of a drawing is an alteration of the original. This fact can work both for and against the artist, but for the most part I found it primarily a source of difficulties. The first of these was obtaining an accurate reproduction of the values and colors of the original drawings. Good, if not perfect, color reproduction can be obtained by careful lighting and exposure. The value range of a drawing that includes white paper and black lines or forms, however, exceeds that of color film. Generally it is preferable to compromise the purity of the whites rather than dilute the intensity of the dark values. Some drawing mediums have special characteristics which cause problems when

they are photographed. The shiny surface of graphite in pencil drawings produces reflections in the darker values. Textural qualities in crayon works tend to disappear when photographed. The quality of the paper is also lost. Photography also strips a drawing of almost all sense of scale. This can completely destroy the original effect of the work. The delicate lines of a small drawing become exaggeratedly bold when they are enlarged many times and projected onto a screen. Conversely, a large drawing loses much of its dramatic quality. Some drawings, to be fully appreciated, must be viewed from several distances. These do not translate well. Neither do drawings in which their qualities as objects are an important aspect of their expression.

There are some positive aspects to showing drawings as photographic slides. The audio visual medium allows the artist to slowly reveal his drawing in stages. He can completely control the sequence and the context in which his drawing is perceived. The special qualities of various details of the work can be dramatically underscored through a series of close-up photographs. The fact that the drawing is stripped of its sense of scale and objecthood is not necessarily bad. This fact may be used to accomplish aesthetic aims. Similarly, the artist may turn photography's tendency to alter the color and value of his original images to his advantage.

In using drawings in Rubaiyats I found that I was most successful when I recognized that a drawing was a means to an end. That end was a photographic transparency. The drawings had to accommodate the limitations of color slides to record tonal scales. The earliest drawings, those in "Mount Hope Dance", lost in the translation to slides. Later I found that compressing the value range in my drawings eliminated this



problem. Some of the drawings in "Dream" actually were enhanced by photography. This was done by making a series of bracketed exposures of sections of a drawing to provide a range of different images. The image selected for use in the sequence was often quite different from the drawn original. The fact that the project slide image was always the same regardless of the size of the original drawing allowed me the freedom to work in any size that suited me. This was a special advantage for the transfer drawings used in "Dream" where many of the transferred images were quite small. This relative quality of image size also allowed me to play with a drawing's sense of scale by doing the audio visual artist's equivalent of the film maker's technique of zooming in or zooming out.

### Commentary

The role of commentary in Rubaiyats was a crucial one. Commentary brought special qualities that could not be found in a purely visual work. Because Rubaiyats was a non-narrative audio visual presentation, the spoken commentary did not function as a framework on which to organize the visual elements. This freed the commentary from the necessity of being always present on the audio track to serve as a pacing device. Where the spoken word was used, it served purely expressive roles. Those roles were setting forth abstract concepts that could not be conveyed visually, resolving ambiguity in the imagery, or enhancing the tonal qualities of the visual elements. The commentaries in Rubaiyats contained no fillers. I sought to use the spoken word in a succinct form and to use it sparingly to increase its effect.

The commentaries in Rubaiyats can be categorized into four

different groups according to the way they were used. These groups were the poetry, the interpretive commentaries, the dream narrative, and the essays. The particular functioning of the individual commentaries will be discussed later. Here I will discuss my use of the four different categories of commentary in a broad sense.

Five different commentaries form the category of poetry. These are three verses from The Rubayyat by Omar Khayyam found in "Opening", "Sea Sequence", "Mount Hope Dance"; my poem "Words Twist" from the sequence of the same title; and my poem in the Rubaiyat verse form used in "Ending". The poems function primarily as strong verbal elements of brief duration that do not need images to convey their meaning. I wanted the poems and the images that accompanied them to be compatible, however I saw the poems as the dominant elements within their sequences. Poetry is a very concentrated form of verbal communication. As such, a poem's significance is much less affected by the accompanying visuals than the significance of the images is altered by the poem. The poems in Rubaiyats serve as center pieces of the sequences in which they are placed. They alter the significance of the imagery by their presence. For example, the final image in "Opening" of the river (slide 15) disappearing into the haze acquires a metaphysical character through its association with verbal concepts of Omar Khayyam's "Rubaiyat XXXI." The haze becomes a visual symbol for the Poet's expression of the uncertainty of life's direction. Both the image and the poem can meaningfully exist independently of each other, yet when they are associated, the poem enriches the significance of the image while itself remaining unaffected.

The interpretive commentaries were created to interreact with

the visual elements. I regarded the commentary and images as forming two aspects of a single expression and thus interdependent. These commentaries are found in "Winter Introduction", "Apogee", and "Greenhouse". Here the commentaries functioned to resolve some of the ambiguity of images in the sequences while the images served to complete the expression of the commentaries. The interpretive commentaries were in the form of brief impressions. The images give form to the impression set forth in the commentary. Since the commentary answers the basic question of what the images in the sequence are about, the audience can concentrate on the nuances of the visuals.

The narrative which formed the commentary for "Dream" is unique among the commentaries. It is a transcription of an actual dream written down as accurately as I could remember. The visual elements in the sequence were created as impressionistic illustrations to depict both the action of the narrative and the qualities of mood that could not be expressed verbally. The commentary also serves as an organizational framework for the visual elements.

The essays are the long expository commentaries found in "House", "Carol", and "Summerend Song". They convey complex abstract ideas, not mere impressions, in a longer and more direct form than the poems. The essays are complete expressions that could exist independently of the visuals. Because of their length, their interreaction with the visuals is more complex than the poems. In the case of "House" and "Summerend Song" the visuals were created specifically to illustrate or augment the verbal expression of the commentary. Portions of these sequences were organized on narrative lines. The imagery in "Carol" was related to the commentary through subject matter alone.

### Non-Verbal Audio Elements

There are three kinds of non-verbal audio elements in Rubaiyats - music, sound effects, and silence. The first of these, music, is the most prominent in the work. There are six different musical selections in Rubaiyats. They are found in "Wedding", "Collegiana", "Spring Transition" (two selections), "Mount Hope Dance", and "Summerend Song". In the first three sequences mentioned there is no verbal commentary. All the musical selections are purely instrumental. Music served two functions in Rubaiyats. First, it was a means of unifying and organizing the visual elements. Second, it served as a form of emotional commentary. The use of music in "Wedding" as a form of commentary is a special case which I will discuss later. The determination as to the emotional quality of a piece of music was entirely subjective. This determination was very important since music has a critical effect on the expressive quality of an audio visual work. Music colors the mood of the visuals and thus should be in harmony with the emotional qualities of the images. The mood qualities of images are less readily perceived than that of music, so music serves an important reinforcing function.

In its function as a temporal structure upon which to organize visual elements, music has several advantages over verbal commentary. First, a piece of music is perceived as a single entity and thus the images associated with it become interrelated through this common connection. Secondly, music is vastly less image specific than verbal commentary. When one hears a commentary about trees, one expects to see images related to trees. Music seldom suggests such specific images. The subject matter and sequential order of images organized by music may

thus be determined independently from the audio. The actual entry times and image durations of the slides however, should be related to the music so that they correspond to the beat and tempo of the musical selection. Finally, music is a form of expression in which the concepts of pace and rhythm are readily perceived. The fast pace of a sequence of images will be readily apparent if accompanied by a fast-paced selection of music. It is important to emphasize that the qualities of pace and rhythm are present in an audio visual work even in the absence of music, but they are less apparent.

Sound effects, the recorded sounds of the natural environment or their facsimile have several functions in Rubaiyats. First, like music they serve to unify the visual elements. Sound effects, however, were not used to organize the visual component. This was because the wind sounds I used in Rubaiyats basically lacked a readily identifiable structure. Secondly, the sound effects give an audio dimension to subject matter of the images. Finally, to a very limited degree the sound effects contribute to the tone of the sequence. The limitation of sound effects in this function is that the mood qualities of a sound are mostly formed through personal associations. Thus the emotional effect of a sound on the audience is often unpredictable. The wind sounds in "Greenhouse" and "Spring Transition" have become the conventional audio symbol for cold, but the emotional tone of the sounds that open and close Rubaiyats (recordings made in an autumn hardwood forest) is less clear. My own response to the sound is a sense of wanderlust tinged with the excitement and faint melancholy of autumn. I strongly doubt that this response is shared by many of my audience.

The final non-verbal audio element is silence. Although silence

is the absence of sound, it has duration and must be "recorded" onto the audio track. The significance of silence in an audio visual work is similar to that of blank paper in a drawing. Although the paper may not be covered with lines, it is a vital part of the overall composition. Silence served three functions in Rubaiyats. First, it was used to concentrate the viewers' attention on the imagery. Secondly, it was used as a connection between audio elements. An audio track without silences would begin to assume the character of a narrative even if it was not all verbal. Transitions between audio elements would have to be considered and there would not be the flexibility of length that silence offers. Finally, silence was also used for expressive effect. Silence allowed the mood of a music selection or of commentary to linger in the viewer's mind. It could be used expressively as a contrasting note to an audio element.

### Rubaiyats in its Entirety

Rubaiyats is a complex work of art. Its complexity is primarily due to its subject matter, the nature of existence. Such a subject does not lend itself to simplification. The work is further complicated by the fact that it is designed to communicate on different levels. There is a philosophical element in the work which is readily recognizable and relatively easy to discuss. A major portion of Rubaiyats however, is concerned with emotional qualities that cannot be adequately related verbally. This emotional expression is suggested by nuances in the commentaries or conveyed by the musical selections and much of it is communicated through the imagery. Ultimately, this aspect tends to make any verbal description of Rubaiyats prone to distorting the

actual character of the work.

Another difficulty in discussing Rubaiyats is my belief that interpretation should not be the artist's role. A work of art has its own being which is independent of its creator's intentions. Analysis and creation are two different processes and there is no guarantee that the artist may be successful in the former even if he is successful in the latter process. Artists often fall into traps of self-delusion when describing their work. Their intimate association with their creation may cause them to see qualities in it that are imperceptible to the viewer.

Despite these two reservations, I believe that some discussion of Rubaiyats as a work of art has merit. It will, at the very minimum, give the reader insight into how I see my own work. Obviously a slide-by-slide account of Rubaiyats would be as tedious to read as it would be to write. A dissertation on all the nuances and implications of each sequence would be equally tiresome. I will attempt to keep this discussion at a level which covers the major concerns of the work without bogging down in detail. My goal is to help the reader understand Rubaiyats without squeezing the work dry of its potential for newness. My basic approach, apart from this general introduction, will be to follow the work in chronological order.

When I began work on Rubaiyats I had a clearer idea of the means I planned to employ in assembling the work than what the ultimate end product would be. There were, however, several things that I was sure about. I knew that the natural landscape, Carol, the seasons, and Mount Hope Cemetery would figure prominently in the imagery; that the work would address the question of mortality; and that it would be

indirectly autobiographical. I also knew the work would be a diverse and complicated one and that one of my major concerns would be giving it coherence. I also had a sense of the emotional tone of much of the work, indeed, the potential of expressing that emotional state drew me to the audio visual medium. Thus, my original conception of the work involved the elements that would comprise it and the techniques of connecting them. What was lacking was a clear picture of the overall theme.

My original idea was to use the seasons as a chronological framework within which I would fit my other sequences. The work would begin in autumn, progress through winter, and come to an exuberant climax with spring. The emotional quality of the other sequences would follow the same pattern. The winter sequences would be the place for the darker reflections on mortality. These would be swept away by the joyous sequences of spring. I already selected a verse by Omar Khayyam to introduce the opening autumn sequence:

Into this Universe, and Why not knowing,  
Nor Whence, like Water willy-nilly flowing:  
And out of it, as Wind along the Waste,  
I know not Whither, willy-nilly blowing.<sup>1</sup>

This opening statement began to make me question my intended conclusion and resolution of the work. Springtime, vibrant and lifegiving as it is, doesn't answer all the questions of mortality. It was also Omar Khayyam

---

<sup>1</sup>Omar Khayyam, The Rubaiyyat of Omar Khayyam, trans. Edward Fitzgerald, with an introduction by Manoocher Aryanpur (London: R.H.S. Publications, 1969), p.26.



who wrote:

Morning a thousand Roses brings, you say:  
 Yes, but where leaves the Rose of Yesterday?  
 And this first Summer month that brings the Rose  
 Shall take Jamshyd and Kaikobad away.<sup>1</sup>

My discontent with my original plan for Rubaiyats came to a head in a rather dramatic manner. On the night of the first of April, 1977 I had a dream that left an extraordinary impression on me. This dream became the basis for the sequence, "Dream". The significance of the dream (and the sequence of the same name) was that it powerfully evoked the pervasiveness of death. By including "Dream" in Rubaiyats I had tipped the mood of the work to the dark side. Though I felt that the presentation was now out of balance, I had no question that "Dream" belonged in it. At the time of its inclusion, the sequence presented not just an artistic problem, but also a philosophical problem that I was unable to resolve.

The artistic and philosophical resolution of Rubaiyats came slowly. It was not until October that I finally arrived at the state of being that caused me to create "Summerend Song". I use the word "philosophical resolution" with great reservation because the expression in "Summerend Song" was not arrived at intellectually. It was primarily the result of my meditative approach to photography and of looking at the images which that experience produced. I now felt that I had a true sense of perspective. A perspective that lead me to write, "I see that the world does not lie outside me but flows through me and that I am as much a part of it as the breezes. I arose from the universe as a wave

---

<sup>1</sup>Ibid., p. 12.

arises from the surface of the ocean before reuniting with its deeper self."

From the perspective of October, death was not the negation of life, but another aspect of existence. Existence, realized in terms that included more than one's self. I recognized that the emotion I felt in the presence of nature was a sense of belonging and a desire for complete immersion. It was this state of mind that lead to Rubaiyats' final form. The conviction expressed verbally in "Summerend Song" pervades the entire work.

Rubaiyats expresses a view of existence where life and death, joy and fear, the individual and the natural world form a single rich tapestry. The organizational techniques I employed were designed to give a sense of unity to a disparate collection of images, ideas, and moods. The process is not one of simplification, just unification. The cycle of the seasons is used to show both the fluctuations of the natural world and the human spirit and to finally portray the merging of all these into a continuous entity. The autobiographical element is present but very little of it is in the form of factual information. Rubaiyats is a spiritual autobiography. It portrays the growth of my viewpoint of existence while simultaneously showing existence from that viewpoint. Thus the statement in "Summerend Song" seems natural since the evidence for that conviction has already been presented.

All this is, of course, an oversimplification. Rubaiyats is also about my wedding, maple leaves, photography, dance, Carol, Mount Hope Cemetery, weathering, the ocean, snow, apples, spring, Irish music, the Highland Conservatory, a clump of pine trees at Mendon ponds, my apartment at 188 Brunswick Street, flowers, flying fish, dreams, autumn, line, tombstones, water, grass, rocks, my cat, death, color, Letchworth State

Park, the time just before spring, light, bones, Grandma Lybeck's place in Kennebunkport, ice, words, Chimney Bluffs, my parents, fiddle music, The Rubaiyyat of Omar Khayyam, wind, Kenneth Van Auken, mist, and other things. Rubaiyats was an opportunity to photograph and think about things that attracted me. It was a chance to share music that I found moving. To consider Rubaiyats as solely a philosophical work would be a distortion. Rubaiyats is about existence and existence is basically not a philosophical matter. Existence is all-inclusive which Rubaiyats quite understandably is not. However, I did try to let the work range broadly. The primary limitations were time and my own inclinations. I wanted to create something rich and diverse enough to be inexpressible in words.

### A Chronological Description of Rubaiyats

#### Opening

"Opening" as its name implies serves as the introduction to Rubaiyats. It, along with the following two sequences serves as a form of overture for the work in which the major themes are first presented. The theme of nature is introduced in this sequence along with the related theme of the seasonal cycle. Also in "Opening" the principal philosophical concern of Rubaiyats is set forth.

The audio component for this sequence, aside from the commentary, consists of a recording of the wind in an autumn woods. The source of this recording was a record titled "Environmental Sounds". I selected a portion that fit best with the sequence and adjusted the levels in the final mix. The audio is designed to heighten the presence of the images of autumn shown in the sequence, to audibly illustrate part of the

commentary, and to enhance the unity of the entire sequence.

The image sequence begins with a misty telephoto shot of autumn trees with the title "Rubaiyats" imposed over the image. The feeling of the next few slides is that of emergence as the images become less misty. Finally the mist clears entirely with a shot of a maple tree and the next series of slides concentrates on leaves. The commentary commences with a photograph of a single maple leaf floating in ice-choked water. The misty forest has by slow degrees been reduced to a single leaf. One of the unifying factors in this sequence is its concentration on a narrow range of subject matter - leaves, trees, and water generally in combination. Leaves also serve as a visualization for the action described in the commentary.

The commentary is a verse, or rubaiyat, from the Rubayyat of Omar Khayyam, translated by Edward Fitzgerald. The verse quoted is Rubaiyat XXXI:

Into this Universe, and Why not knowing,  
Nor Whence, like Water willy-nilly flowing:  
And out of it, as Wind along the Waste,<sup>1</sup>  
I know not Whither, willy-nilly blowing.<sup>1</sup>

This opening commentary establishes the principal concern of Rubaiyats, that of existence. The Rubayyat of Omar Khayyam has been one of my favorite literary works since I first discovered it in high school. It is a collection of ninety verses which are interrelated, yet each verse is self sufficient. Khayyam emphasized the fleeting quality of existence, the inability of man to understand or direct his fate, and

---

<sup>1</sup>Ibid., p. 26.

the importance of savoring life. The quality of the opening rubaiyat, characterizes much of Khayyam's poetry as Fitzgerald recreated it. It is flowing and beautiful and succinctly expresses both an idea and a mood.

Rubaiyat XXXI is a statement of one of the fundamental facts of existence. That fact is that we exist without any real understanding of why or of what our fate will be. It is an awesome concept, a concept that challenges one to respond. Rubaiyats is the form that my response takes.

The images in the sequence following the commentary are of water flowing down a gorge and then of the river and trees within the gorge. The imagery has expanded from a single leaf to include more and more of the universe. There is one image tucked in with the shots of distant trees which is visually similar but of a different subject matter. This is a photograph of a tombstone surrounded with overgrown weeds and small trees (slide 13). I carefully chose the preceding and succeeding images so that the tombstone image would not seem out of place. This slide introduces the tombstone motive and death for which it is a symbol. The context of the introduction of this motive was an important consideration. I wanted it to be seen as a part of nature. The final image in this sequence is a visual summation of the commentary. It shows a river flowing into a void of haze (slide 15). This photograph suggests most strongly what the other images in the sequence have also suggested; that nature is the principal manifestation of the universe referred to in the commentary.

## Words Twist

"Words Twist" is a short sequence centered around the poem "Words Twist" which reads as follows:

Words.  
 Words twist.  
 Words twist in my mind,  
 Take form,  
 Then fade away.

I wrote the poem to describe the mental process that was occurring while I worked on Rubaiyats, a process where ideas formed then dissipated in the turmoil of creation. The poem also reflects the building up then fading process which some of the themes go through in Rubaiyats itself.

The images in "Words Twist" serve on one level simply as illustrations of the commentary. They are photographs of words. One which accompanies the line "Words Tiwst", is a fragment of a Schlitz can with its twisting letter forms. The final image is of the fading letters of a sign painted on a brick wall. Some of the images work on other levels as well. Three of them come from tombstones, continuing that motive. I used the word "died" not only as image of a word but also to more directly introduce the theme of death that was represented in the first sequence by the tombstone motive. The third slide in the sequence (slide 18) is an oblique self-portrait with overtones of mortality.

The first slide in this sequence of a word obscured by dried grass has a visual similarity to the trees of some of the images in "Opening". Otherwise, the transition between the sequences is abrupt. "Words Twist" changes the pacing which was fairly slow and even in the first sequence. As a part of the "overture" of Rubaiyats this sequence livens the tempo

and prepares the viewer for later changes in pacing. The rhythm used in this sequence is a loosely determined descending rhythm that is keyed to the verbal rhythm of the commentary.

### Wedding

"Wedding" is the sequence in which Carol first appears and helps the viewer understand who she is. Carol is the last major theme to be introduced. "Wedding" is also the most autobiographic sequence in Rubaiyats in that it is concerned with portraying an actual event in my life. The principal mood of this sequence is that of joy. This is conveyed through a series of tightly cropped images of laughing people.

The sequence consists of photographs of photographs. This is made clear by the first image (slide 21) which consists of a snapshot, mounted with photo-corners, with a dried flower laid over its upper portion. The second image, that of a photographer, reinforces this idea. All the images in this sequence are derived from snapshots of my wedding taken by several amateur photographers. Their photographs were assembled into an album as a wedding gift and thus I am unable to identify the individual photographers. Generally I photographed only portions of the original snapshots. This allowed me to accomplish two things. First, I could select images that captured my sense of the mood of the event. Secondly, I could emphasize the grain of the images and other qualities that characterize snapshots such as red eyes, blurry focus, and flashcube exposures. The reason for this latter concern is that "Wedding" is in part about photography itself. I was particularly interested in photography as an artifact. By concentrating on such things as grain, I hoped to emphasize the photographic nature of these images.

With this goal in mind I photographed snapshots as objects (slides 21 and 36), chose the images for slides 24 and 34 for their hammy poses, and used the image in slides 29, 37 and 38 because of its photographic distortion.

The audio for this sequence consists of a music box being wound up and then played until it winds down. The music starts in the middle of the tune and then repeats in cycles getting ever slower until it stops in mid-tune. The music box was a wedding gift. The music it plays is the theme from Love Story. Although I had some reservations about using such a recognizable piece of music which doubtlessly had specific connotations for many of the viewers, I finally decided that fate had a hand in its selection. The connotations the music has for me, that of a marriage terminated by untimely death, make it a disturbingly ironic accompaniment. The music by virtue of being played on a music box is strongly cyclic. Cycles are an important element in Rubaiyats and the music in "Wedding" allowed me to clearly present one early in the work. The major cycles in Rubaiyats are the seasons and the metaphysical cycle of existence.

The end of this sequence is a smooth visual transition into the next sequence, "Winter Introduction". It consists of showing different images of the same object, a bouquet. First it is seen primarily as a simple image of a bouquet (slide 35). Next it appears as an image in an object, i.e. - a snapshot, which is itself surrounded by dried and withered flowers, perhaps the same flowers. Next it appears, ghost-like and faded, in a strangely distorted photograph of a man holding the bouquet (slide 37). This image is similar to ones that will appear in "Dream". The music box is almost completely wound down. The final



note plays on a close-up of the distorted bouquet. In silence this image is followed by a photograph of granite flowers on a tombstone. Dark streaks running from the stone flowers are repeated in the first image of "Winter Introduction" except that now they are streaks of snow down the face of a dark cliff. The presence of tombstone images in the first two sequences increases the likelihood that the granite flowers will be recognized as being from a tombstone.

The intent of this last portion of "Wedding" is to create a feeling of strangeness as the cycles run out and to reintroduce the theme of death. The end of "Wedding" is rife with references to death - dried flowers, the ghostlike image of the bouquet, the winding down of the music box, the connotation of the music, and finally, and most strongly, the tombstone motive. All these references are meant as an undercurrent to the sequence's predominant mood of joy.

#### Winter Introduction

"Winter Introduction" as its title implies, advances the cycle of the seasons. The sequence is based on a visual progression, that of the landscape being gradually covered with snow. The commentary is the only audio element in the sequence. It consists of one line, "The land whitened into the austere perfection of winter." The commentary opens the sequence and serves to remove any ambiguity of the nature of the progression. Visual progressions are highly successful in unifying sequences because each image anticipates the succeeding image. Slow pacing and a steady rhythm were used in this sequence to enhance the sense of progression.

The tombstone motive which links "Wedding" with "Winter Intro-

duction" advances the idea that winter is a kind of death. This is reinforced by the fact that life in the form of vegetation progressively diminishes in the sequence until it is utterly gone in the final image. As a symbol for death this progression makes an important point because the final images are light, not dark, and are in my opinion, very beautiful. They are images about quietness and perfection. They help to place death in a natural context.

### Collegiana

"Collegiana" raucously and playfully places Carol in the midst of the "austere perfection of winter" where she proceeds to do the Charleston. Carol is both an individual personality and theme in Rubaiyats. In "Wedding" she was introduced as an individual, specifically as my bride. In "Collegiana" the viewer learns more about her as an individual, specifically that she is a dancer. "Collegiana" also develops Carol as a theme where she represents the force of life. She shatters the silence of "Winter Introduction" to dance in the empty winter landscape. The sequence expands the locales of the images while keeping the unifying elements of music and subject matter. In this expansion, the theme of death is interwoven into the fabric since some of the dancing is done on the steps of the Hubbell mausoleum. The final image in the sequence (slide 63) was made specifically as a transitional element. The unnatural tones and colors were the result of using tungsten film outdoors and shooting with a powerful strobe that was covered with an 85B filter. The mausoleum assumes a greater prominence in this photograph while Carol tends to be obscured against the dark door.

### Dream

"Dream" begins with an image that is identical to the last slide in "Collegiana" except for two respects; first, it is drawn and, secondly, Carol is missing. The next image is very similar to the preceding one except it is more loosely drawn and it includes eyes peering out from the sky and a cross looming in front of the mausoleum. The three-slide mausoleum sequence serves as a transition from the real world into the eerie one of the commentary. It also smooths the change from photographed to drawn imagery.

The commentary commences with a close-up of the cross that appeared in the last mausoleum slide. It is a description of a dream that I had on the night of April 1st, 1977:

I was with another person, a woman whose identity I don't remember. Together we were given a tree to plant in a cemetery. The tree was an oak about seven feet high yet over half a foot in diameter. It was leafless and covered with a thick coat of whitewash so that its appearance was that of a huge bone. The part of the cemetery we were in had no tombstones, just tall oaks among dark pines. Many of the oaks had been cut down and their trunks lay about rotting. We wandered through the woods seeking a spot away from its shade to plant our tree. The trees thinned out approaching the border of the cemetery. There were houses nearby and the promise of sunlight. We selected a spot of lawn next to a sidewalk and began to dig a hole.

As I dug the earth crumbled away and exposed a cavity filled with corpses. They were tangled together - men and women, adults and children - some only partially uncovered in the soil. Their bodies had turned caricature through decay. Faces had become leather masks, hard with expressions impossible to decipher. Flesh had drawn in close around emerging bones. Clothing, faded and stiffened, was filled with dirt.

Wildly I shovelled earth back into the hole covering the people. All the while the woman screamed. We realized that corpses extended everywhere beneath our feet and nowhere could we plant our tree without uncovering them.

"Dream" is concerned with the pervasiveness of death. This idea is presented not as a revelation but as a recognition of fact. The

previous sequences have prepared one for this moment primarily through the use of the tombstone motive. This motive has introduced the concept of mortality into a variety of different contexts. "Dream" makes the implications of the tombstone motive explicit. The motive is represented in this sequence by the ghostly cross which leads one to the place where the hole is dug. The message of the narrative is conveyed by the grisly metaphor of the last line, "We realized that corpses extended everywhere beneath our feet and nowhere could we plant our tree without uncovering them."

The drawings which accompany the commentary were done more as illustrations of the mood of the dream than as depictions of what it describes. I combined solvent transfers of magazine and newspaper halftones with pencil and crayon to produce images that combined the visual aspects of both photography and drawing. This technique gave the drawings an indistinct and faded look that seemed appropriate for the subject matter. I consider several of the drawings in this sequence to be especially successful in exploiting the characteristics of the audio visual medium. These are slides 73, 78, and 79. In the case of these drawings, the act of photographing them went beyond a simple matter of reproduction. These are all images of details of larger drawings. Slide 79, for example, is part of the image in slide 71. Framing and exposure have been actively used to create the final images. The sequence ends with the image of a hand slowly fading into blackness. To achieve this effect, the dissolve rate is set to a longer rate manually and re-set to its original rate once the dissolve is completed. This final image is one of helplessness, as the hand, either menacing or pleading, dissolves to nothingness.

## Mount Hope Dance

"Dream" presents the idea of the pervasiveness of death in a forceful but basically detached manner. The horror of "Dream" is in the subject of the narrative, not in the manner it is presented. The commentary is a straight forward description of a dream. Only the hand image hints at some kind of comment about the content of the narrative. "Mount Hope Dance", on the other hand, is concerned with my reaction to the message of the dream. This sequence is a danse macabre, a dance of death. It is a frenzied and surreal version of this theme of so many medieval paintings.

"Mount Hope Dance" is the most complex sequence in Rubaiyats. It commences with a return to images of the real world from the blackness that ended "Dream". The first image is a skeletal bush against black water. There are two more dark and lifeless photographs of vegetation. The images which are presented carry a pall over them as if the vision of the dream has been realized in nature. The tombstone motive reappears accompanied by the sound of drumbeats, in an image that is a continuation of the lifeless landscape series.

The commentary for the sequence follows the tombstone slide and consists of Rubaiyat XIII from The Rubayyat of Omar Khayyam:

Some for the Glories of This World; and some  
Sigh for the Prophet's Paradise to come;  
Ah, take the Cash, and let the Promise go,  
Nor heed the rumble of a distant Drum!<sup>1</sup>

---

<sup>1</sup>Ibid., p. 15

The verse begins by defining the two alternative goals in life, either success in this world or salvation in the presumed next one. Then it offers another alternative, to take what one can from the moment and ignore the future. The last line admonishes us to disregard the distant drum of our own demise. The images that accompany the commentary illustrate the line, "Some for the Glories of this World.." and the line, "and some sigh for the Prophet's paradise to come.." They do so with irony because they convey both modes of life by means of tombstones. The path of glory is illustrated by a nameless stone marked with a faded flag (slide 85). The path to paradise is illustrated by a surreal strobe shot of an angel on a tombstone (slide 86).

The drum beats resume again as part of a traditional Irish tune titled "Morning Dew". The drum beats which have been identified with death through the commentary are very prominent in the beginning of the music and continue throughout the song. The music accompanies the portion of the sequence which gives it the title, "Mount Hope Dance". Mount Hope is the cemetery where many of the photographs for Rubaiyats were made. The "dance" begins with photographs of tombstones. The photographic images in this sequence also include the bones of a decaying animal (slide 93), a dried fish erected like a funerary monument (slide 95), and a self-portrait where I fade away from my perch on a grave marker by means of a dissolve (slides 98 and 99). The photographic portion of the sequence closes on a photograph of a monument. This image is duplicated in the next slide except that it is drawn (see slides 100 and 101). The image expands in the following slide to show that the monument is resting on ground that is cracking like a shell. This image commences a series of fantastic drawings which parallel an increasing

frenzy in the music. Another monument is revealed to be the nose horn of a skull creature. Fish, some partly mechanical, fly through the air or crash in a dark cemetery-like landscape. Slides 106 through 113 use rapid cuts to animate one of these flying creatures. Color is almost entirely absent. The images are done in black and tones of gray. The sequence climaxes with a mid-flight collision of two mechanical creatures that are part skull and part fish. Their machinery entrails spew out. The concluding image is of a dark wreckage strewn landscape.

The musical portion of "Mount Hope Dance" with the drawings that accompany it form the principal emotional response to "Dream". This dance of death expresses a feeling of wild chaos, violent power, and the strange potentiality of madness. It is not a rational response and I have never truly understood it. This is despite the fact that it is a recurring theme in my sketchbooks over a period of years. It is somewhat akin to the exhilarating terror I get from peering over the edge of a precipice into the void below. The dance of "Mount Hope Dance" is not a philosophic statement. It is not intended to be understood, but to be felt.

### Sea Sequence

"Sea Sequence" is essentially concerned with placing death in its proper perspective. It marks the turning point of Rubaiyats where the theme of death diminishes in significance as the importance of the nature or the universe theme increases. The sequence begins with a photograph of dark water with a hint of light at the top of the image. Thus the opening image of "Sea Sequence" is linked to the dark landscape at the close of "Mount Hope Dance" through their dark values. As the sequence progresses through the next few slides, the light and color increase while

simultaneously the images of water become images of the seacoast. The effect is one of a departure of darkness and it is intended to be felt as a departure of the dark mood of the preceding two sequences. The commentary commences at this point. It is Rubaiyat LVII from The Rubayyat of Omar Khayyam.

When You and I behind the Veil are past,  
Oh but the long long while the World shall last,  
Which of our Coming and Departure heeds  
As much as Ocean of a pebble-cast.<sup>1</sup>

The images that complete the sequence progress from the rocky seashore; to the details of rocks; to the seashore again, this time shrouded in fog; and finally to the open sea and sky. The photographs are inter-related through subject matter and color.

"Sea Sequence" serves as a counter balance to the death theme in several ways. The most important of these is the expression of the commentary as reflected in the imagery. The direct reference to the ocean in the rubaiyat is partly the reason for using images of the sea and rocks. The main significance of the imagery, however, is derived from the first two lines of the verse - "When You and I behind the Veil are past, Oh but the long long while the World shall last.." "Sea Sequence" offers a view of the World, a world which transcends the individual's demise. The sea with its vastness, its quality of light, and its combination of constant change and permanence and the rocks with their sense of solidity and stability seemed to be perfect representatives of the world mentioned

---

<sup>1</sup>Ibid., p. 40



in the rubaiyat. "Sea Sequence" is a photographic sequence as opposed to "Dream" and most of "Mount Hope Dance" which are drawn. Photography emphasizes the sense of the reality of "Sea Sequence's" vision of the world. It is a vision of light and color, of fluidity and stability, and of openness; one that takes delight in the beauty of the world. Finally, the slow pacing, the steady rhythm, and the use of silence help give the sequence a calming quality.

"Sea Sequence" sets the basis for a concept which will culminate in "Summerend Song". It establishes the transcendence of the world over the individual if for no other reason than its permanence. It also displays some of the beauty and variety of that world. The final images of the sequence, like the last shot in "Opening", are about vast spaces filled with light.

### Apogee

"Apogee" is a sequence that functions on three levels. On the first level it advances the seasonal cycle to the depths of winter. The commentary which commences with the first image in the sequence makes this point clearly:

The dark season; when winter is balanced in its apogee,  
remotest from memories of summer and hopes of spring. The  
vener of life has retreated to its utmost and surrenders  
the land to the cold rule of the elements.

The imagery is illustrative of the commentary. It consists of photographs of ice, snow, and sky. It shows a landscape devoid of life, one of elemental simplicity.

The retreat of life mentioned in the commentary and shown in the imagery and the reference to winter as "the dark season" link this sequence to the theme of death. The association of winter with death was first made in "Winter Introduction" through means of the tombstone motive which began that sequence. Thus "Apogee" functions on the second level to reassert the death theme as linked with winter.

On the third level, "Apogee" is also an assertion of the nature theme. This theme, however, cannot be considered as being separate from the themes of the seasons and death. All three interreact within "Apogee". In particular the nature theme functions to modify the significance of the death theme. The images of this sequence are about the natural world as well as winter and lifelessness. As such they are concerned with the beauty of winter as well as its starkness. In "Apogee" death is contained within the context of the natural universe as part of the seasonal cycle. It has acquired a calmer, quieter mood as opposed to its nightmare quality in "Dream" or its frenetic surreal energy in "Mount Hope Dance". "Apogee" thus is an expansion of the idea first verbalized in "Sea Sequence" but first visualized in "Opening" through the tombstone motive. It is a concept of the natural universe which includes death as one of its component parts.

### Greenhouse

The central theme of "Greenhouse" is the conflict between forces of winter and spring. The images in the sequence are of the Highland Park Conservatory in Winter. Although the irony of flowers juxtaposed with snow is clear, the commentary is essential in establishing a sense of conflict:

Passing the conservatory I imagined that the springtime within murmured, "Let me out, let me out," but it was only the winter winds demanding, "Let us in, let us in."

Commencing with the words "winter winds" the sound of wind commences in the audio track and continues for the rest of the sequence.

"Greenhouse" functions to introduce spring in concept if not in fact. The conflict in the sequence can be, and is intended to be, interpreted on several different levels. On the most realistic level it is a fanciful idea resulting from a yearning for springtime. This is the way it is actually presented in the commentary. The idea once mentioned is illustrated by the imagery on the literal level as if it were an actual conflict between spring and winter. The final two images (slides 152 and 153) show the outcome of this conflict. The snow flows into the greenhouse and the final image is of a flower withering in the snow. The conflict can also be interpreted on a symbolic level as between death and life.

### Spring Transition

"Spring Transition" is about the change of seasons. Its tone alters from melancholy to exuberance as the subject changes from the desolate landscape of winter's end to the burgeoning of life in spring and summer. Music and sound effects are the sole audio elements in this sequence. They play a significant role both in organizing the imagery and defining the tone of the sequence. "Spring Transition" marks the further decline of the theme of death which is represented in the first half of the sequence by the last appearances of the tombstone motive. The nature theme, on the converse, commences its ascendancy. The second

half of "Spring Transition" and the following three sequences are the counterbalances to the somber moods of the earlier sequences. These emphasize life, color, and the visual richness of the natural world.

"Spring Transition" thus is a major pivot point in Rubaiyats.

The first half of "Spring Transition" is concerned with the end of winter. It begins with an image of snow marked by a set of animal tracks and the shadow of a tree (slide 154). The image conveys a landscape in the grip of winter but with hints of life upon it. The images which follow form a loose progression of the land slowly emerging from its covering of snow. The colors of this portion of "Spring Transition" are muted; mostly grays and browns. The land that is uncovered has the tired and tangled look that precedes spring. The audio that accompanies this imagery has a longing mood. The music is a sad slow air titled "An Raibh Tú aq an qCarraiq?". It is played on a single flute emphasizing its lonely quality. The music is accompanied by the same sound of wind from "Greenhouse". The audio thus gives a sound picture of the thin thread of life still in conflict with the forces of winter as it longs for spring.

The change in "Spring Transition" is first marked by the change in the audio. The winds die out and then the single flute begins a new tune, the spritely "Trip to Sligo". The music is cyclic in that it repeats the same basic melody. The single flute is joined by other flutes and in successive cycles additional instruments come in giving the music a richer and more complex character. I used the cyclic structure of the music to organize the visuals into mini-sequences of two to four images which corresponded with the repetitions of the melody. These mini-sequences are arranged in a rough progression from the early tentative

gray greens and browns of early spring vegetation to the more assertive colors and foliage of later spring and summer. The overall sequence, however, does not follow a strict chronology. The images in the mini-sequences are interrelated through subject matter, form, and color and several form progressions. The blossoming of an apple tree is one such progression (slides 186 through 188). Another chronicles a cat's experience of spring (slides 192 through 195) and a third shows a field turning green (slides 181 through 183). A specially significant mini-sequence shows Carol leaping nude in front of a green pine tree (slides 196 through 198). Here she is transformed into a spring spirit. Her nudity, the exuberance of her movement and the context of the images help identify her with nature and with the life forces.

### House

"House" is principally concerned with two themes. The first is the autobiographical quality of my living space. The second, and more important, is the blending of the natural world shown in the preceding sequences and fabric of my own existence. Both concepts are directly addressed by the commentary:

Even in rented rooms one grows roots. This small patch is mine to shape. What surrounds me is my own picking and choosing. This house is both a workspace furnished with necessities and a box for magpie treasures. Thus filled rooms become self-portraits exposing habits and fancies. Yet all the while the world floods in through windows reminding me that the house is only a cramped shell and one's home is the universe.

The images in this sequence are illustrative of the commentary and are organized on narrative lines. At the same time they present the self-portrait mentioned in the commentary. Not surprisingly the

images of this sequence have many similarities with the photographs in the earlier sequences. Plants, stones, a bone, and light figure prominently as subject matter. For me, nature is not simply something found in the woods. It is the principal manifestation of the flow of the universe. One could not expect walls to keep the universe out. In "House" I tried to show that I find much of what fascinates me in the out-of-doors, also indoors in my own living space. The last line of the commentary - "Yet all the while the world floods in through windows reminding me that the house is only a cramped shell and one's home is the universe" - ties in the commentaries of "Opening" and "Sea Sequence" which were also concerned with the world or universe.

#### Carol

The last image of "House" shows the world flooding in through the window in the form of golden light. "Carol" begins with an image of Carol in a golden haze of light. These two images are thus visually linked through color and value and more significantly the ideas of Carol and the universe are connected. A person can be as much of a manifestation of the universe as any of the phenomena of nature. This is one of the principal themes of "Carol", that she evokes in me many of the same feelings that I experience in the awesome presence of nature. The second theme of "Carol" is a portrayal of her as a distinct personality.

"Carol" is the only sequence where both the audio and visual components were created to be entirely self-sufficient. The images were photographed to display a broad view of Carol with an emphasis on the diversity of her personality. The images are linked through a variety of visual means - form, color, and value - and by subject matter. The

commentary was not considered when deciding what images to use or in what order they would appear.

The commentary is concerned with describing Carol and my relationship with her:

Carol, as in Christmas Carol. Taller than I. Who says her feet are too small. Moving. Dancing. Moving as if dancing and dancing as if speaking. My own body is hidden behind my eyes while hers is whole filling my close spaces.

My incomprehensible friend, just as leaves and clouds are beyond comprehending. Moved by different winds. Her paths alter mine. We are like twin stars do-si-doing in the heavens, apart yet invisibly tied. Now near, now far we dance together.

My mysterious partner. Whose moods are my weather. Vast. Kaleidoscopic. I watch her as I watch the sky; for delight, for instruction, and for warning when to take cover. Our souls peer out through separate windows. Yet sometimes we say the same words at once and we both understand the quiet speech of love.

The commentary was added to a visual component that was already organized to produce a slow-paced sequence with an even rhythm. Interestingly, the audio and visual elements interreact so that it seems that the slides are illustrations of the ideas expressed in the commentary. I found that I had to take that interreaction into account when locating the audio element within the sequence.

"Carol" like "House", elaborates the concept of the universe that was first expressed by the nature theme in "Sea Sequence". These sequences are designed to show that the presence I found in nature could also be found in "House" and now in "Carol". That presence is the force of the universe. The disorder of a workspace, Carol dancing in a sun-light studio, as well as the woods filling with snow are all portrayed as aspects of that same force. Thus, the commentaries of "Carol" and "House" speak in terms such as "Even in rented rooms one grows roots." and "Whose moods are my weather. Vast. Kaleidoscopic. I watch her as

I watch the sky." I was particularly concerned with expressing that the emotions I experienced in a natural setting were not exclusively limited to that setting. The force of the universe is present in a crowded elevator but there it is more difficult to perceive. The vastness of the ocean, the intricate shades of a single leaf, or the flow of the seasons are manifestations of this force in more apparent forms. One can sense the force behind them more easily. Thus, natural images play a vital role in Rubaiyats as the primary source of my response to the universe. That response is not primarily an intellectual one, hence the emphasis on tone. Once expressing that response through means of images of nature in "Opening", "Winter Introduction", "Sea Sequence", and "Spring Transition" I wanted to express the same feeling, if not with images of elevators, then at least through images of my apartment and of Carol. Many of the photographs in both "House" and "Carol" are intended to be evocative of earlier sequences to emphasize their interrelationship.

#### Summerend Song

"Summerend Song" is the philosophic and emotional climax of Rubaiyats. It is divided into two parts. The first is the commentary, "Summerend Song" which is the verbal expression of the insight that I achieved through the process of creating Rubaiyats. In this part, the commentary is clearly the dominant expressive element. The drawings that accompany it were conceived simply as illustrations in the most limited sense. They are symbolic visualizations of the abstract ideas expressed in the commentary and do not significantly contribute to their meaning. The commentary of "Summerend Song" is as follows:



This is my summerend song, my harvest of thought grown onionlike in layers. An idea which stands on the refuge heap of past season's philosophies like Troy rebuilt nine times on its own ruins until it stood on a hill. From that hill I see that the world does not lie outside me but flows through me and that I am as much a part of it as the breezes. I arose from the universe as a wave arises from the surface of the ocean to endure but a moment before reuniting with its deeper self. I peer out with my eyes and see the world. Behind my eyes lies my mind. Behind my mind thoughts stream out like a comet's tail flowing over the landscape. I am but a small point with awareness rippling out. The ripples tumble through growing fields, wash over stones, spread out over the surface of the sea and finally dissolve into the stars.

The second part of "Summerend Song" is an expression of my emotional response to the insight expressed in the commentary. It is designed to convey a sense of exhilaration through music and photographs. The pacing of the visuals follows the lively tempo of the music. The images in this part of the sequence are primarily a celebration of the richness and the beauty of the universe as represented by nature. A photograph of Carol standing nude in a glen is included in keeping with my expanded view of nature. There is a strong emphasis on bright color in the imagery. The images in this sequence also serve to advance the seasonal cycle from summer to fall. The final image in this sequence is of the bare branches of a small tree. The beauty of its back lit form and its autumn subject matter make it an appropriate companion for the other images. This image however is also a reminder that death too is a part of the natural order.

### Ending

"Ending" in many respects makes as complex a philosophical statement as "Summerend Song". This statement, unlike that of the previous

sequence, is communicated more by nonverbal means than it is by the commentary. "Ending" completes a cycle, not only of the seasons, but of Rubaiyats itself. "Ending" returns to the same sound effects and images that opened Rubaiyats. I wanted to express that the jubilation of "Summerend Song" in no way denies the reality of the emotions of "Dream or Mount Hope Dance". "Ending" serves to remind the viewer of the earlier sequences by giving the work a circular structure. The implication is that "Ending" is also the beginning. Like King Arthur's round table, my circular structure tends to deny precedence to any one idea or emotion expressed in the work. Obviously, the upbeat qualities of the final sequences color the total tone of Rubaiyats more strongly because they appear at the end of the piece. This is the intended effect. The cyclic structure of the work is more conceptual than real. However, that conception makes a significant point and that is that the universe that I speak of in "Summerend Song" is all encompassing. It includes both joy and fear, vibrancy and bleakness, life and death. The commentary sums it up:

This poem composed of pictures now is done  
 The turning trays have cycled like the sun,  
 Thus dark and light return for each new dance  
 Until the colors mix and blend to one.

The sound effects in "Ending" serve a major function in linking it with "Opening" and thus defining the cyclic character of Rubaiyats. The actual technique is quite simple; I used the same recording in both sequences. Additionally, the commentary was located within the midst of the sequence as it was in "Opening". To heighten the similarity between the two sequences I used the rubaiyat verse form for my commentary in "Ending".

The images in "Ending" begin as a continuation of autumn photographs in "Summerend Song". The pacing, however, is slower. The fourth slide in "Ending" is the same as the fourth slide in "Opening". It is at this point that the commentary commences. The next three images are the first three slides of Rubaiyats shown in reverse order. The effect is of the landscape fading back into the mist. The rhythm of the latter part of this sequence is a descending one, which has a calming quality. This rhythm is enhanced by manually increasing the dissolve rate. The images of "Ending" thus function to close the circle conceptually. The rhythm of the imagery serves to gently calm the emotions generated by the exuberant pace of "Summerend Song". It permits Rubaiyats to close on a quiet and reflective note.

#### IV. CONCLUSIONS

There are two different aspects of Rubaiyats to consider when evaluating the work. The first is the effectiveness and practicality of its non-narrative form of organization. The second is its merit as an artistic expression. In both areas I feel that Rubaiyats was successful.

The non-narrative form of organization is particularly suitable to the audio visual medium. It is a flexible means by which the various component elements can be used to their greatest advantage. A non-narrative audio visual work is not dominated by any one of its elements. The emphasis can vary throughout the work depending on which element or combination of elements fulfills the expressive requirements. Non-narrative organization permits rich variety and complexity while still maintaining unity.

The organizational techniques I developed while working on Rubaiyats made this complex form manageable without sacrificing flexibility. They are particularly useful in making creative use of time. These techniques were subsequently used in the production of a commercial audio visual presentation where their efficiency proved very cost effective.

Although an artist can never be completely satisfied with his work, I feel that Rubaiyats achieved my artistic aims. The work has coherence yet it also has a rich diversity of elements. Despite my belief that my photography, writing, and drawing have progressed in the two years since I finished Rubaiyats I am still, in general, satisfied

with the individual visual and audio elements of the work.

It is, however, in the area of emotional expression that I believe Rubaiyats has achieved its greatest success. People who have viewed it find it a moving work. Although I have seen it scores of times, I am still affected by it. It seems to me to have become something larger than my designs. The insight expressed in Rubaiyats has become the basis for much of my attitude towards life. I am beginning to understand that insight in terms of the Zen experience.

Rubaiyats is a complex expression and it seems capable of communicating on a variety of levels. Different people see different things in it upon their first viewing. It has been described as romantic and as morbid. It has moved some people to tears. It has inspired a choreographer to create a dance, "Misa Criola". I seriously doubt that anyone would grasp the entire work by seeing it once or twice. Most people who view Rubaiyats for the first time have difficulty verbalizing their reactions. They experience it on the emotional level. For me, this is the greatest affirmation of my work.

## SOURCES

- Aston, Dore. "Rauschenberg's Thirty Four Illustrations for Dante's Inferno." Métro 2, May 1961, pp. 53-61.
- Brautigan, Richard. Trout Fishing in America. New York: Dell Publishing Co., 1967.  
Use of the nonnarrative form in a novel.
- Cage, John. "On Robert Rauschenberg, Artist, and His Work." Metro 2, May 1961, pp. 37-51.
- Coke, Van Deren. The Painter and the Photograph: from Delacroix to Warhol. Albuquerque: University of New Mexico Press, 1972.
- Cooke, Deryck. An Introduction to Der Ring Des Nibelungen. London: Decca Record Company, 1969.  
Analysis of Wagner's use of motives, accompanied by recordings of same (London Records RDN S-1).
- Eliade, Mircea. The Sacred and the Profane: The Nature of Religion. trans. Willard R. Trask. New York: Harper & Row, 1961.  
Eliade's concept of sacred time helped lead to the adoption of a cyclic structure in Rubaiyats.
- Fellini, Federico, director. Amarcord. Italy, 1974.  
A film with a nonnarrative structure.
- Forge, Andrew. Rauschenberg. New York: Harry N. Abrams, n.d.
- Gordon, Roger L., ed. The Art of Multi-Image. n.p.: The Association for Multi-Image, 1978.  
Compiled after Rubaiyats was completed, this book gives a good insight to the medium from a commercial viewpoint and contains useful technical information.
- Haas, Ernst. The Creation. London: Michael Joseph Ltd., 1971.  
Influential photographs of Nature.
- Hughes, Robert. "Enfant Terrible at 50." Time, 27 January 1975, pp. 60-61.
- Johnson, Ellen H. "The Image Duplicators--Lichtensten, Rauschenberg and Warhol." Canadian Art, January 1966, pp. 12-19.
- Khayyam, Omar. The Rubayyat of Omar Khayyam. trans. Edward Fitzgerald, with introduction by Manoocher Aryanpur. London: R.H.S. Publications, 1969.
- National Collection of Fine Arts. Robert Rauschenberg. Washington: Smithsonian Institution, 1977.

Porter, Allan. "Sequences." Photokina 1972. September 23-1 October 1972, pp. 49-66.

Catalog to an exhibition that spurred by interest in photographic sequences.

Scharf, Aaron. Art and Photography. Baltimore: Penguin Books, 1974.

Vonnegut, Kurt, Jr. Slaughterhouse-Five or The Children's Crusade.

New York: Dell Publishing Co., 1969.

The use of a literary motive, "So it goes".

Woodworth, Hugh. Zen: The Turn Towards Life. Boston: Branden Press, 1969.

Insight into the philosophy of Rubaiyats.

## APPENDIX A. PLANNING BOARD

SEQUENCING	AUDIO	VISUAL	STATUS
<b>OPENING 1 TIME:</b> INTRODUCTION TO RUBAI ADD "EPILOGUE" REFLECTION OF AIRY/ATMOSPHERIC REDUCTION OF NATURAL IMAGERY <b>TITLE SLIDES</b>	<b>TIME:</b> SILENT CUT FROM THE WOOD IN THE AUTUMN WOODS FROM "EXTREMELY SOUNDS" TOUCHING, SILENT, SILENT SIMULTANEOUSLY FAULT FILMENTS FROM MOSCOW IN OTHER STATIONS ARE PLAYED AS OVERLAP (COMMENTARY: 1. WOODS COMMENTARY: RUBAIYAT 100 - "THE WOOD WOODS"	<b>GENERAL:</b> ALL PHOTOGRAPHY FALLS INTO 2 TYPES OF LAYOUTS - GENERAL CAPTIVITY ESSENTIAL ILLUSTRATION OF THE RUBAI	
<b>WORDS TWIST 2 TIME:</b> REFLECTION OF THE NATURE OF THE FIELD - A COMPOSITION OF THE OF FRAGMENTS	<b>MUSIC:</b> NONE <b>COMMENTARY:</b> FROM "WORDS TWIST"	<b>GENERAL:</b> IMAGERY SHOULD WORK ON TWO LEVELS 1. ILLUSTRATIONS OF WORDS FOUND IN RUBAI (EXHIBIT AS FRAGMENTS NOT ONLY LESS FRAGMENT BUT IN CONTEXT THEY SHOULD BE INTERPRETING THE RUBAI 2. INTERPRETING OF THEMES 3. DEATH (OUD) 4. WEDDING	<b>SHOOT MORE WORDS</b>
<b>WEDDING 3 TIME: 1:25</b> A BIRTH/DEATH SEQUENCE COMPOSED OF FRAGMENTS OF RUBAIYAT IS SENSITIVE OF WEDDING, FRAGMENTS OF RUBAI RATHER THAN EVENT INTRODUCES CASUAL	<b>MUSIC:</b> MUSIC BOX PLAYING "LOVE STORY" INCLUDING WINDING SOUNDS A SLOWING DOWN OF MUSIC AS SLOWLY UNWINDS <b>POSSIBLE:</b> FRAGMENT FROM COLLEGIANA	<b>GENERAL:</b> 1. CLOSE UP FROM WEDDING DRESS 2. WEDDING DRESS DANCE FIGURES OF CASUAL 3. POSSIBLE COLLAGE, DANCE OR CONTENT 4. END SHOT, CASUAL, FUTURE - CONNECTION?	
<b>WINTER INTRODUCTION 4 TIME:</b> COLLECTION OF SEASONS THEME CORRELATIONS: FLOWERS - LUNA WITH WEDDING, CASUAL, ALSO TOMBSTONE MOTIVE	<b>POSSIBLE SOUND:</b> RACK - WIND SOUNDS <b>COMMENTARY:</b> "THE LAND WHITTENED..."	<b>GENERAL:</b> FURTHER ILLUSTRATION OF COMPOSITE RUBAI 1. FLOWERS IN THE RUBAI 2. WEDDING DRESS 3. WEDDING DRESS 4. WEDDING DRESS	
<b>COLLEGIANA 5 TIME: 40 SEC.</b> CAROL DANCING IN WIDE VARIETY OF LOCATIONS COLLECTION INVOLVES MOTIVES OF: 1. FLOWERS 2. WEDDING 3. WEDDING 4. WEDDING 5. WEDDING 6. WEDDING 7. WEDDING 8. WEDDING 9. WEDDING 10. WEDDING 11. WEDDING 12. WEDDING 13. WEDDING 14. WEDDING 15. WEDDING 16. WEDDING 17. WEDDING 18. WEDDING 19. WEDDING 20. WEDDING 21. WEDDING 22. WEDDING 23. WEDDING 24. WEDDING 25. WEDDING 26. WEDDING 27. WEDDING 28. WEDDING 29. WEDDING 30. WEDDING 31. WEDDING 32. WEDDING 33. WEDDING 34. WEDDING 35. WEDDING 36. WEDDING 37. WEDDING 38. WEDDING 39. WEDDING 40. WEDDING	<b>MUSIC:</b> REFLECTION (LUTHERAN) PORTION OF "COLLEGIANA" BY NIPPY WINDING DANCE FROM DUTCH, SILVER AND GOLD UNTERSTATIONS UN-INTERESTING SIDE ONE, THIRD CUT	<b>FAST PACE DANCE PICTURES OF CHARLES</b> RUBAIYAT ON VARIETY OF LOCATIONS THESE SHOULD BE LOCATED WITH SETTINGS FROM OTHER SEGMENTS 1. LAKES IN WINTER 2. LAKES IN WINTER 3. LAKES IN WINTER 4. LAKES IN WINTER 5. LAKES IN WINTER 6. LAKES IN WINTER 7. LAKES IN WINTER 8. LAKES IN WINTER 9. LAKES IN WINTER 10. LAKES IN WINTER 11. LAKES IN WINTER 12. LAKES IN WINTER 13. LAKES IN WINTER 14. LAKES IN WINTER 15. LAKES IN WINTER 16. LAKES IN WINTER 17. LAKES IN WINTER 18. LAKES IN WINTER 19. LAKES IN WINTER 20. LAKES IN WINTER 21. LAKES IN WINTER 22. LAKES IN WINTER 23. LAKES IN WINTER 24. LAKES IN WINTER 25. LAKES IN WINTER 26. LAKES IN WINTER 27. LAKES IN WINTER 28. LAKES IN WINTER 29. LAKES IN WINTER 30. LAKES IN WINTER 31. LAKES IN WINTER 32. LAKES IN WINTER 33. LAKES IN WINTER 34. LAKES IN WINTER 35. LAKES IN WINTER 36. LAKES IN WINTER 37. LAKES IN WINTER 38. LAKES IN WINTER 39. LAKES IN WINTER 40. LAKES IN WINTER	
<b>DREAM 6 TIME: 1:45</b> STRONGEST USE OF VERBAL IMAGERY NOT NEGATIVE EXPRESSION OF THE DEATH MOTIVE	<b>POSSIBLE SOUND:</b> (OUD) WIND SOUNDS <b>COMMENTARY:</b> DREAM (LUTHERAN)	<b>IMAGERY:</b> SHOULD ATTEMPT TO REFLECT THE SILENT MOOD OF THE DREAM RATHER THAN LUTHERAN THE NATURAL RUBAIYAT SHOULD BE OBSERVE SILENTLY THE... BECOME PRO- DUCED BY RUBAIYAT, RUBAIYAT RUBAIYAT	<b>CORPSE DRAWING IS WEAK</b> (THE RUBAIYAT RUBAIYAT) <b>ASS:</b> CHECK SEQUENCE FOR EMOTIONALITY 1. RUBAIYAT RUBAIYAT 2. RUBAIYAT RUBAIYAT 3. RUBAIYAT RUBAIYAT 4. RUBAIYAT RUBAIYAT 5. RUBAIYAT RUBAIYAT 6. RUBAIYAT RUBAIYAT 7. RUBAIYAT RUBAIYAT 8. RUBAIYAT RUBAIYAT 9. RUBAIYAT RUBAIYAT 10. RUBAIYAT RUBAIYAT 11. RUBAIYAT RUBAIYAT 12. RUBAIYAT RUBAIYAT 13. RUBAIYAT RUBAIYAT 14. RUBAIYAT RUBAIYAT 15. RUBAIYAT RUBAIYAT 16. RUBAIYAT RUBAIYAT 17. RUBAIYAT RUBAIYAT 18. RUBAIYAT RUBAIYAT 19. RUBAIYAT RUBAIYAT 20. RUBAIYAT RUBAIYAT 21. RUBAIYAT RUBAIYAT 22. RUBAIYAT RUBAIYAT 23. RUBAIYAT RUBAIYAT 24. RUBAIYAT RUBAIYAT 25. RUBAIYAT RUBAIYAT 26. RUBAIYAT RUBAIYAT 27. RUBAIYAT RUBAIYAT 28. RUBAIYAT RUBAIYAT 29. RUBAIYAT RUBAIYAT 30. RUBAIYAT RUBAIYAT 31. RUBAIYAT RUBAIYAT 32. RUBAIYAT RUBAIYAT 33. RUBAIYAT RUBAIYAT 34. RUBAIYAT RUBAIYAT 35. RUBAIYAT RUBAIYAT 36. RUBAIYAT RUBAIYAT 37. RUBAIYAT RUBAIYAT 38. RUBAIYAT RUBAIYAT 39. RUBAIYAT RUBAIYAT 40. RUBAIYAT RUBAIYAT

The above is a section of the planning board used in creating Rubaiyats. The primary purpose of the planning board was to provide a means for recording the structure of the entire work in a form that could be easily rearranged or changed. The planning board was a creative tool and many of the ideas set down on the cards were later abandoned in the final audio visual work. The board was not meant to be a precise record of all the elements in the completed work.



## APPENDIX B. MASTER TAPE RECORDING SHEET

MASTER TAPE RECORDING SHEET					PAGE 1 OF 4 PAGES			
RUNNING TIME	TRACK ONE (L1)				TRACK TWO (R3)			
	DESCRIPTION	INTERVAL LENGTH	LEVEL DATA	SOURCE TAPE CUEING INFO	DESCRIPTION	INTERVAL LENGTH	LEVEL DATA	CUEING INFO
0:00	SYNC SIGNAL	:00	6					
:20				→	WOODS IN AUTUMN	1:25	076	
:55	OPENING RUBAIYAT	:13	6	2 SEC. AFTER SIGNAL	FADE DOWN FOR COMMENTARY		2	
					WOODS IN AUTUMN		670	
1:45	WORDS TWIST	:09	6					
1:54	SILENCE	:05						
1:59	WEDDING BOY	1:15	6					
3:14	SILENCE	05	TOTAL 45 6					
3:19	THE LAND WHITENED	04						
3:23	SILENCE	36						

Above is one of the Master Tape Recording Sheets used in creating Rubaiyats. This document was initially used to plan and to record the audio track on the master tape. Later it served as a record of all the audio elements of the master tape.

## APPENDIX C. TIMING ANALYSIS

### MASTER TAPE ANALYSIS

TEAC		DESCRIPTION
RUNNING TIME		
1ST TEST	2ND TEST	
0:00	0:00	SYNC SIGNAL
0:22.	:22	BEGINNING OF AUTUMN WOODS
1:10	1:10	BEG. OF OPENING RUBAIYAT
45	48	END OF AUTUMN WOODS
46.5	46.5	"WORDS" "...FADE AWAY" 1:55
2:01	2:01	BEGINNING OF "WINDING SOUND" 07 MUSIC BEGINS
17-	3:17	END OF MUSIC BOX
23	23	"THE LAND..." 27+
4:04	4:04.4	BEGINNING NOTE OF COLLEGIA
4:44	4:44.6	END OF COLLEGIA
4:58	4:58	"I WAS WITH..."
6:41.5	6:42	END OF DREAM "THEM" OF "...WITHOUT UNCOVERING THEM"
6:57.5	6:58	DRUMBEATS
7:02	7:03	"SOME FOR THE GLORIES..."
7:16	7:15.8	BEGINNING OF "MORNING DEW" END 9:28+
9:41.5	9:41	"WHEN YOU AND I..."
10:27.5	10:27.5	"THE DARK SEASON..." (DURATION 18 SECS
11:23	11:23	"PASSING THE CONSERVATORY..." (DURATION 15 SECS)
11:07	1	BEGINNING OF "AN RAIRH TÚ AG AN CARRAIG"
13:35	13:36	BEGINNING OF "THE TRIP TO SLIGO" / END OF "AN RAIRH
15:42	15:48	END OF "THE TRIP TO SLIGO"
15:52.5	15:52.2	"EVEN IN RENTED ROOMS..." END 16:25-
16:39	16:40	"CAROL..." (210 1846)
18:03	18:03	"THIS IS MY SUMMER SONG..."
19:06	19:07	BEGINNING OF "YANKEE'S REVENGE"
20:05	20:05.5	BEGINNING OF AUTUMN WOODS
20:25	20:25	"THIS POEM..." DURATION 11 SEC END ~ 21:27
21:58	21:58	END OF AUTUMN WOODS

LAST SYNC SIGNAL (BLACK SLIDE) →

The above is the Timing Analysis of the master tape used in creating Rubaiyats. This document was a very precise timing analysis of the audio track of the master tape. It noted the running times of all audio elements that were to be used in calculating

image durations. This analysis was done on the same tape recorder which was later used to record the synchronization track. The Master Tape Analysis was necessary to insure that any deviations from the Master Tape Record Sheet due to the recording process would be noted before the image durations were determined.

# APPENDIX D. SYNCH SCRIPT

8 OF 10

SLIDE NO.	ENTRY TIME OR KEY WORD	SYNCH TYPE	TAPE CHECK	WORKSHEET CALCULATED IMAGE DURATION	SLIDE DESCRIPTION	NOTES
211	15:17	X	✓	19.1 17	SPRING TREES	
212	20	X	✓	27 20	SPRING LEAVES	
213	23	X	✓	34.9 23	BUD	
214	26	D	✓	27.8 26	MAGOLIA	
215	30	D	✓	30.1 30	GOLDEN PEGUUA	
216	36	D	✓	33.0	PLANT IN WINDOW	
217	•EVEN 39	D	✓		ROOTS IN FLOWER	
218	ROOTS • THIS SPRING	D	✓		WINDOW • BASS FISH	
219	CHOOSING • THIS HOUSE	D	✓		DESK TOP	
220	RECLOSES • AND	D	✓		BONE, LEAF, ROCK	
221	TREASURE • THUS	D	✓		ROOTER	
222	FANCIES • YET	D	✓		WINDOW IN GLASS	
223	IS ONLY • A CRAMPED	D	✓		" W FROST	
224	UNIVERSE. 16:12	D	✓		CAROLINGH/PALE	
225	17	X	✓	16.8 17	CAROL ON PATH	
226	21	X	✓	21.2 21	CAROL CU/MP	
227	26	D	✓	24.7 26	CAROL AT STUDIO	
228	31	D	✓	27.2 31	DANCING AT HOME	
229	36	D	✓	29.7 36	" " AT STUDIO (MULT)	
230	40	D	✓	32.5 40	ARMS BACK	
231	45	D	✓	35.2 45	" HANDS	
232	50	D	✓	37.7 50	" W LEAF	
233	55	D	✓	40.2 55	C/W RED FLOWER	
234	17:00	D	✓	17.00 17:00	C IN TREE	
235	5	D	✓	4.8 05	FEET	
236	10	D	✓	9.6 10	DANCING	
237	14	D	✓	12.4 14	" IN GROVE	
238	19	D	✓	15.2 19	GH WINDOW	
239	24	D	✓	18.0 24	IN SHOW	
240	27	X	✓	20.8 27	FALLS DOWN	CUT

The above is a page from the Synch Script used in creating Rubaiyats. This document was used in determining when each visual

element would appear on the screen and if it would appear by means of a dissolve or a cut. It also functioned as a record of all the visual elements. Note how the entry times derived from calculated image durations were adjusted up or down to arrive at the final entry times (in the "worksheet" column the former are listed on the left). The tape check column was used to locate and check individual synchronization signals.

# APPENDIX E. WORKING SYNCH SCRIPT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
000	37	33	22	08	11.42	47 x	17x	30
38	41	36	33	12	48	52 x	20 x	35
42	45	39	38	15	54	54 x	25 x	42
42	49	45	40	21 22	59	59 x	26	48
52	536	51	45x	26	12.04	14.03.5x	30	54
57	58	58	48.1	31	9	4 x	36 x	59
1:01	3:03	58	48.1	37	13	7 x	36 x	59
06	85	55x	55x	43	16	10 x	36 x	59
11	15	56	56	48	23	13	36 x	59
16	20	8.03 x	8.03 x	53	28	18 x	36 x	59
20	25	8.05.4	8.05.4	59	33	21 x	36 x	59
25	30	10	10	10:05	37	24 x	36 x	59
30	35	16	16	10	42	26.5x	36 x	59
35	41	18	18	15	47+	29 x	36 x	59
40	46	22 x	22 x	20	53	32 x	36 x	59
45	51	25.5 x	25.5 x	25	57	35 x	36 x	59
50	57	27 x	27 x	30	13:02	38.5x	36 x	59
X=NOT START	4:02 x	28.5 x	28.5 x	35	06	40 x	36 x	59
X=NOT START	6 x	27 x	27 x	40	18	41.5x	36 x	59
X=TAKE	8 y	27.5x	27.5x	45	17	43 x	36 x	59
THEN=FADE	10 x	28 x	28 x	50	22	45 x	36 x	59
1:57	12 x	28.5x	28.5x	55	26x	47 x	36 x	59
2:03	15 x	29	29	11:00	27 x	50 x	36 x	59
2:07x	17 x	30	30	5	33 x	53 x	36 x	59
11	19 x	32 x	32 x	10	36 x	55 x	36 x	59
14	21 x	34 x	34 x	15	39 x	58 x	36 x	59
18	24 x	36 x	36 x	20	40 x	60 x	36 x	59
21	27 x	38 x	38 x	25	42 x	62 x	36 x	59
25	29 x	40 x	40 x	31	43 x	64 x	36 x	59
29	31 x	42 x	42 x	37	45D	66 x	36 x	59
33								

The above is an abbreviated form of the Synch Script that was used in recording the synchronization track of Rubaiyats' master tape. This Working Synch Script reduces ten pages of material to one page to facilitate recording. The "X's" indicate a cut.

APPENDIX F. SOURCES OF RECORDED MUSIC  
AND SOUND EFFECTS

Listed in order of appearance and by sequence title are the sources of the recorded music and sound effects in Rubaiyats:

Opening

"The Wind In the Autumn Woods." Environmental Sounds. Yorkshire Records, Yorkshire 27015.

Collegiana

The Nitty Gritty Dirt Band. "Collegiana." Dirt, Silver & Gold. United Artists, UA-LA670-L3-1198.

Mount Hope Dance

The Chieftains. "The Morning Dew." The Chieftains 4. Island Records, ILPS 9380.

Spring Transition

The Chieftains. "An Raibh Tú ag an gCarraig?" The Chieftains 3. Island Records, ILPS 9379.

Summerend Song

David Bromberg. "Yankee's Revenge." Midnight On the Water. Columba Records, PC 33397.